March 9 — March 15, 2015 | bloomberg.com

Bloomberg Businesswe

Putin vs. the Accountant

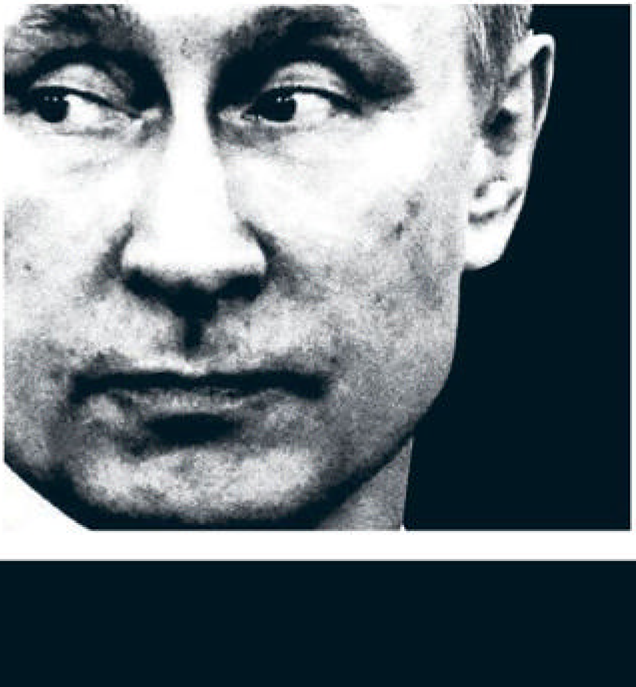
SHE'S FROM CHICAGO.

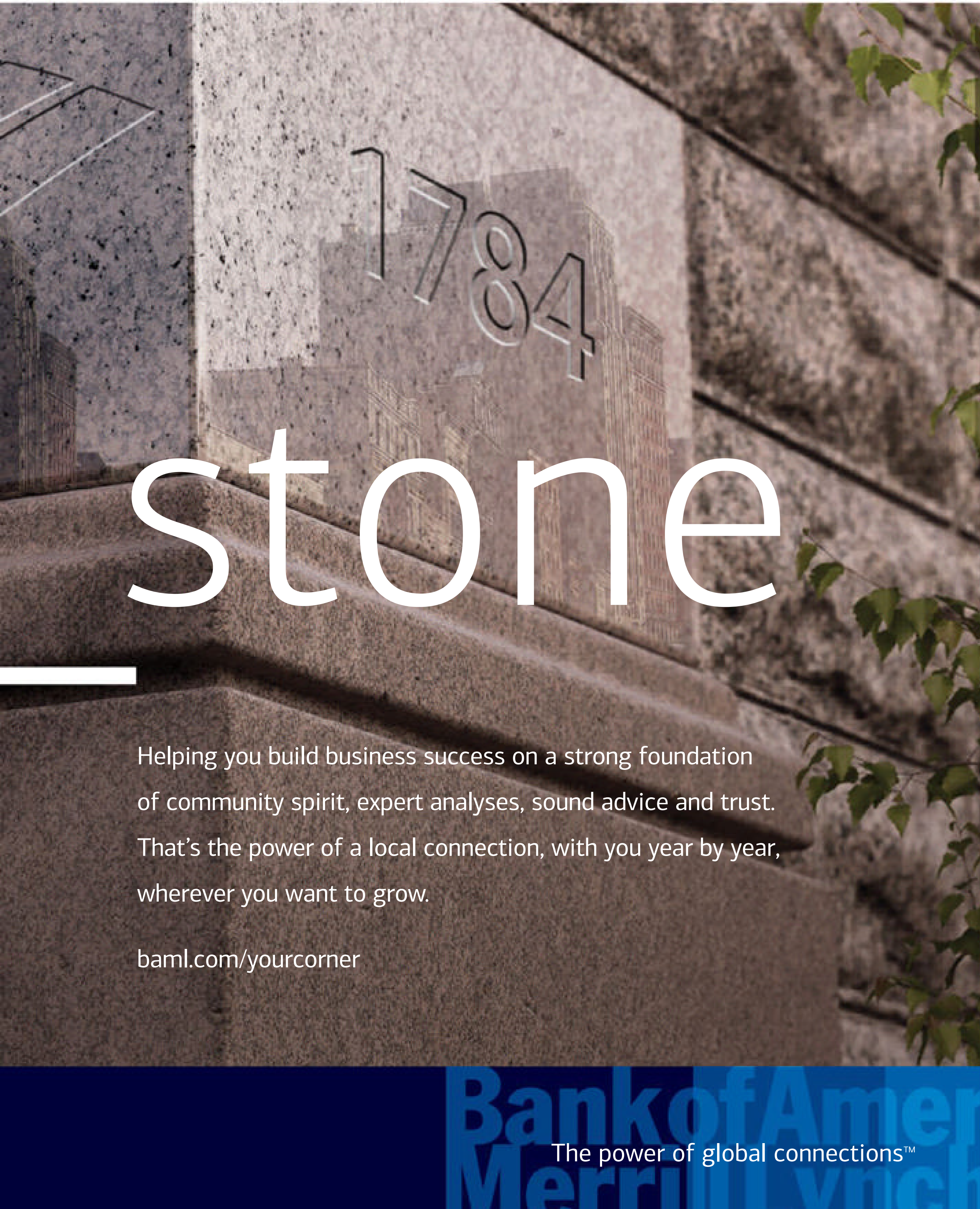
HER LAST JOB WAS IN

PRIVATE EQUITY.

AND UKRAINE'S FUTURE

IS IN HER HANDS p60





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Energy Innovation

Innovative Investment in Energy: Markets and Capital

Energy availability underpins economic growth

In the depths of the Great Depression, Standard Oil of California offered the king of Saudi Arabia an upfront payment of $250,000 plus 10 cents per barrel in royalties for exploration rights to a newly discovered oil field. The company's business was hobbled by deeply depressed crude prices, but it possessed considerable capital and a long-term view. Further investment to develop the Saudi resources was put off for years, yet over time the returns would prove enormous.

As petroleum experiences another bear market, some investors are looking to deleverage, with projects backed by non-investment-grade bonds among the first to act. That said, no sector rivals energy in its ability—and need—to project market fundamentals over long time periods. Looking ahead decades, demographic, geopolitical and technological factors foretell a rise in worldwide demand, which will require appropriate investment. Eirik Wærness, Chief Economist at Statoil, notes a reciprocal cause-effect relationship between economic growth and energy's fortunes.

"Economic development will continue to drive energy demand, and energy is a prerequisite for economic growth," says Wærness. The current supply of natural gas and oil is meeting demand, but the world's largest oil and gas fields are maturing. Statoil's research group estimates that in 2040, fossil fuels will continue to supply over 70 percent of total primary energy demand.

To meet total energy demand in the 2030s will require capital outlays that are expected to be significantly higher than the already-high amounts spent over the past 15 years. "It's a question of whether producers believe in sufficiently high prices for the product, and whether our cost of capital will be at a level that lets us meet the challenge," comments Wærness.

The energy investment picture can be clouded—but also clarified—by politics and public rhetoric. Social concern around CO_2 emissions has spurred calls for divestment of fossil-fuel equity by university endowment and state pension funds. However, in his recent story on the topic, Nathaniel Bullard of Bloomberg New Energy Finance (BNEF) notes that "very few other investments offer the scale, liquidity, growth and yield of these century-old businesses with economy-wide demand for their products."

The BNEF report does note that coal could find itself increasingly pared from institutional portfolios. The report also points to renewables as a destination for capital. "The $5.5 trillion needed to build out clean energy through 2030 will offer many new opportunities for investors," Bullard writes.

As it forecasts investment spending, the energy industry now seeks efficiency in every possible facet, including sharing of geologic data and of ownership of licenses among multiple producers. "Collaboration is a best practice we need to see more of," says Per Sandberg, Vice President of Innovation at Statoil. "In this business you must drill to get data, so without sharing there is duplication of that capital cost; better to have the competition be about data interpretation."

Within the BNEF analyst group, Michel Di Capua, Head of Analysis, Americas Region, has looked at capital investment from the standpoint of R&D spending. "There has been appetite from the venture capital community for low-carbon renewables, but that's not to say that more-established industries are standing still. In the world of natural gas, there have been tremendous advances in technologies to reinvent the methods of extraction and production," he says. "Implementing these innovations and scaling them calls for collaboration among industry, academia and investors."

—David Gould

HELGE HANSEN/STATOIL ASA


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IMPORTANT FACTS

VIAGRA (sildenafil citrate) tablets (vi-AG-rah)

IMPORTANT SAFETY INFORMATION ABOUT VIAGRA

VIAGRA can cause your blood pressure to drop suddenly to an unsafe level if it is taken with certain other medicines. Do not take VIAGRA if you take medicines called "nitrates" for chest pain (angina). A sudden drop in blood pressure can cause you to feel dizzy, faint, or have a heart attack or stroke.

Tell all your healthcare providers that you take VIAGRA. If you need emergency medical care for a heart problem, tell your healthcare provider when you last took VIAGRA.

Stop sexual activity and get medical help right away if you have chest pain, dizziness, or nausea during sex.

Ask your doctor if your heart is healthy enough to handle the extra strain of having sex, especially if your heart is already weak from a heart attack or heart disease.

VIAGRA does not protect you or your partner from getting sexually transmitted diseases, including HIV—the virus that causes AIDS.

WHAT IS VIAGRA?

VIAGRA is a prescription medicine used to treat erectile dysfunction (ED). VIAGRA helps a man with erectile dysfunction get and keep an erection only when he is sexually excited (stimulated).

VIAGRA is not for use in women or children under 18 years of age.

DO NOT TAKE VIAGRA IF YOU:

- Take medicines called "nitrates" (such as nitroglycerin)
- Use street drugs called "poppers" (such as amyl nitrate or nitrite, and butyl nitrate)
- Are allergic to sildenafil, as contained in VIAGRA and Revatio, or any of the ingredients in VIAGRA

BEFORE YOU START VIAGRA

Tell your doctor if you have or ever had:

- Heart attack, abnormal heartbeats, or stroke
- Heart problems, such as heart failure, chest pain, angina, or aortic valve narrowing
- Heart surgery within the last 6 months
- Low or high blood pressure
- Severe vision loss, including an eye problem called non-arteritic anterior ischemic optic neuropathy (NAION)
- An eye condition called retinitis pigmentosa
- Kidney or liver problems
- Blood problems, such as sickle cell anemia, multiple myeloma or leukemia
- A deformed penis, Peyronie's disease, or an erection that lasted more than 4 hours
- Stomach ulcers or any kind of bleeding problems
- Any other medical conditions

Tell your doctor about all your medicines:

Include prescription and over-the-counter medicines, vitamins, and herbal supplements.

VIAGRA may affect the way other medicines work, and other medicines may affect the way VIAGRA works causing side effects. Especially tell your healthcare provider if you take any of the following:

- Medicines called nitrates (see **"important safety information about VIAGRA"**)
- Medicines called alpha-blockers such as Hytrin (terazosin HCl), Flomax (tamsulosin HCl), Cardura (doxazosin mesylate), Minipress (prazosin HCl), Uroxatral (alfuzosin HCl), Jalyn (dutasteride and tamsulosin HCl), or Rapaflo (silodosin). Alpha-blockers are sometimes prescribed for prostate problems or high blood pressure. In some patients, the use of VIAGRA with alpha-blockers can lead to a drop in blood pressure or to fainting.
- Medicines called HIV protease inhibitors, such as ritonavir (Norvir), indinavir sulfate (Crixivan), saquinavir (Fortovase or Invirase), or atazanavir sulfate (Reyataz)
- Some types of oral antifungal medicines, such as ketoconazole (Nizoral) and itraconazole (Sporanox)
- Some types of antibiotics, such as clarithromycin (Biaxin), telithromycin (Ketek), or erythromycin
- Other medicines that treat high blood pressure
- Other medicines or treatments for ED
- VIAGRA contains sildenafil, which is also found in another drug called REVATIO. REVATIO is used to treat pulmonary arterial hypertension (PAH). VIAGRA should not be used with REVATIO or with other PAH treatments containing sildenafil or any other PDE5 inhibitors (such as Adcirca [tadalafil]).

POSSIBLE SIDE EFFECTS OF VIAGRA

What are the possible side effects of VIAGRA?

VIAGRA can cause serious side effects. Rarely reported side effects include:

- **An erection that will not go away (priapism).** If you have an erection that lasts more than 4 hours, get medical help right away. If it is not treated right away, priapism can permanently damage your penis.
- **Sudden vision loss in one or both eyes.** Sudden vision loss in one or both eyes can be a sign of a serious eye problem called non-arteritic anterior ischemic optic neuropathy (NAION). Stop taking VIAGRA and call your healthcare provider right away if you have sudden vision loss in one or both eyes.
- **Sudden hearing decrease or hearing loss.** Some people may also have ringing in their ears (tinnitus) or dizziness. If you have these symptoms, stop taking VIAGRA and contact a doctor right away.

The most common side effects of VIAGRA are:

- Headache
- Flushing
- Upset stomach
- Abnormal vision, such as changes in color vision (such as having a blue color tinge) and blurred vision
- Stuffy or runny nose
- Back pain
- Muscle pain
- Nausea
- Dizziness
- Rash

In addition, heart attack, stroke, irregular heartbeats, and death have happened rarely in men taking VIAGRA. Most, but not all, of these men had heart problems before taking VIAGRA. It is not known if VIAGRA caused these problems.

Tell your healthcare provider if you have any side effect that bothers you or does not go away.

These are not all the possible side effects of VIAGRA. For more information, ask your healthcare provider or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

HOW TO TAKE VIAGRA

- Take VIAGRA exactly as your healthcare provider tells you to take it.
- Your healthcare provider will tell you how much and when to take Viagra.
- Your healthcare provider may change your dose if needed.
- Take VIAGRA about 1 hour before sexual activity. You may take VIAGRA between 30 minutes to 4 hours before sexual activity if needed.
- VIAGRA can be taken with or without food. If you take VIAGRA after a high fat meal (such as a cheeseburger and french fries), VIAGRA may take a little longer to start working.
- Do not take VIAGRA more than 1 time a day.
- If you accidentally take too much VIAGRA, call your doctor or go to the nearest hospital emergency room right away.

NEED MORE INFORMATION?

This is only a summary of important information. Ask your doctor or pharmacist for complete product information OR

Go to **www.viagra.com or call (888) 4-VIAGRA (484-2472).**

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PHOTOGRAPH BY GUY MARTIN FOR BLOOMBERG BUSINESSWEEK

Bloomberg Businessweek

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How the cover gets made

1 "Cover story is on Ukraine's finance minister, who has enormous challenges ahead of her."

"What types of challenges?"

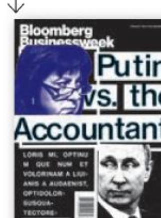
"For one, rebuilding the economy that Putin helped destroy."

"I wouldn't want that job."

2 "I don't think the tone is right."

3 "Emphasizing Putin helps, but it's hard to read."

4 "Ditto."



5 "Better."

COVER, FROM TOP: CHRIS RATCLIFFE/BLOOMBERG; SASHA MORDOVETS/GETTY IMAGES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What if I can't maintain my lifestyle?
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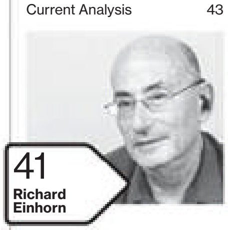

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Opening Remarks

Should The Banks Be Cut Down To Size?

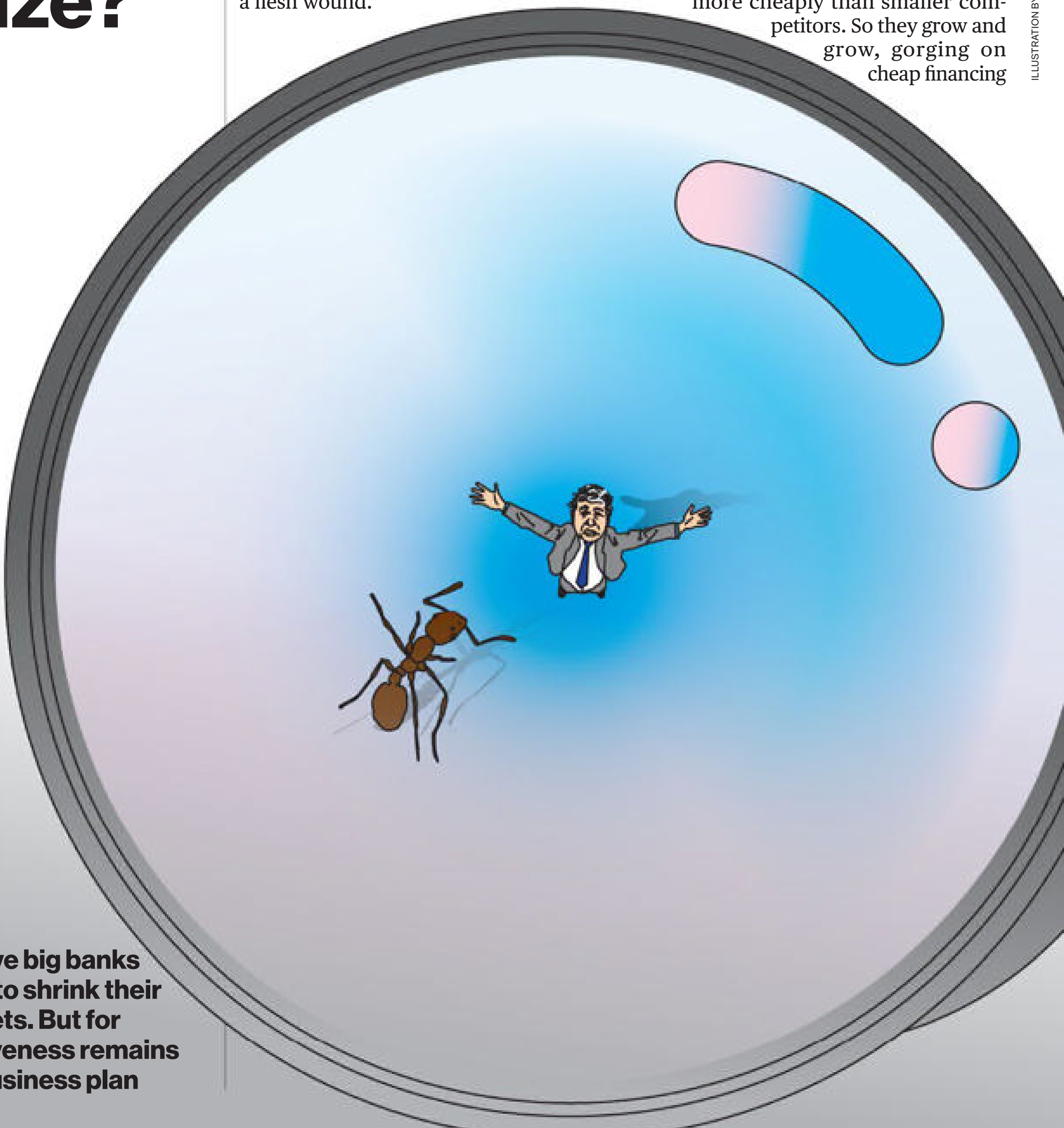
By Peter Coy

Jamie Dimon never quits. After Sandy Weill forced him out of Citigroup in 1999, Dimon staged a comeback that returned him to the pinnacle of banking as chief executive officer of JPMorgan Chase. After he was diagnosed with throat cancer last summer, he vowed to beat the disease with radiation and chemotherapy. Now he's tussling with Janet Yellen's Federal Reserve, which is ratcheting up the amount of capital the biggest banks must have on their balance sheets as a safety cushion for the next crash. The Fed's tougher capital rules give the megabanks an incentive to shrink, but Dimon has no intention of doing so. CLSA Americas banking analyst Mike Mayo likens Dimon to the Black Knight in *Monty Python and the Holy Grail*, who keeps trying to fight while his arms and legs are being lopped off, saying, "It's just a flesh wound."

The conflict is being framed as Jamie vs. Janet, but the real issue is size. Are big banks like JPMorgan Chase unavoidably dangerous? Would cutting them down make the financial system safer? Are there other sources of risk that the government should be focusing on? Understanding the link between size and safety is more crucial than ever, because most of the biggest global banks—not just Dimon's—are fighting to stay big and important. "We haven't gone out of our basic businesses," Goldman Sachs CEO Lloyd Blankfein told Bloomberg TV in January, likening regulation to "background noise."

Critics argue that enormous banks have an unfair advantage: Because everyone knows the government wouldn't dare let them default for fear of starting an avalanche of defaults, they're able to borrow more cheaply than smaller competitors. So they grow and grow, gorging on cheap financing

ILLUSTRATION BY 731



New rules give big banks an incentive to shrink their balance sheets. But for most, massiveness remains part of the business plan

and becoming more of a threat to the financial system. Eight bank holding companies have almost 60 percent of the assets in the U.S. banking system, Yellen pointedly observed in a March 3 speech.

The Fed doesn't order banks to downsize. It simply requires that the big, complicated ones have more capital than smaller, simpler banks do. On Feb. 25, Yellen told the House Committee on Financial Services that the new capital rules are gradually solving the too-big-to-fail problem: "We're beginning to see discussions that these capital charges are sufficiently large it's causing those firms to think seriously about whether or not they should spin off some of their enterprises to reduce their systemic footprint," she said. "And frankly, that's exactly what we want to see happen."

Except not everyone has taken Yellen's message to heart. True, headlines create the impression of crash dieting by the banks, including those in Europe, which are also subject to tougher capital standards. HSBC, the most valuable European bank, said in February it's considering "extreme solutions" for some of its units, while Royal Bank of Scotland is cutting U.S. traders and leaving two-thirds of the countries where it operates. Citigroup has shed more than a third of its employees and exited numerous businesses since the financial crisis.

But a lot of the shrinkage is because the whole industry is doing poorly. In terms of market share, the heavyweights are just as big as they've ever been. Take underwriting, in which financial companies help businesses raise money by selling bonds or shares of stock. According to an analysis of data compiled by Bloomberg, the same five companies that dominated non-U.S. bond underwriting in 2007 dominated it again in 2014: JPMorgan Chase, Deutsche Bank, Barclays, HSBC, and Citigroup. Their combined share of the market was undiminished at precisely 31.7 percent. In equity underwriting, the top five's share rose by 1 percentage point, to 41.1 percent. Only in leveraged loans was there noticeable slippage, with the top five's share shrinking from about 62 percent to a still-dominant 55 percent.

In trading, too, a handful of big companies continues to rule. In 2005, before the financial crisis, the five biggest currency dealers had 39 percent of global trading volume. By 2013 the top five's share had soared to 53 percent, according to Kevin McPartland, head of research for market structure and technology at Greenwich Associates, a Stamford (Conn.) research firm. In interest rate derivatives, five firms that McPartland calls "flow monsters" had 65 percent of trading volume last year. Even ordinary people outside the financial markets seem to have swallowed their anger toward the big banks: The five biggest retail banks added 25 million deposit accounts from 2010 to 2014, according to the Bipartisan Policy Center.

How worried about this should we be? Very, says Dennis Kelleher, chief executive of Better Markets, a pro-regulation group. "There's an overlapping interest in the biggest banks and the regulators to overstate what's been done," he says. Regulators like to claim they've slain the dragon, while banks argue that they can't breathe, Kelleher says. In fact, he says, "Finance has become the richest industry in the history of the world. It has used that economic power to purchase political power. ... I'm not saying nothing has changed, but they're still one of the most formidable forces in Washington, D.C."

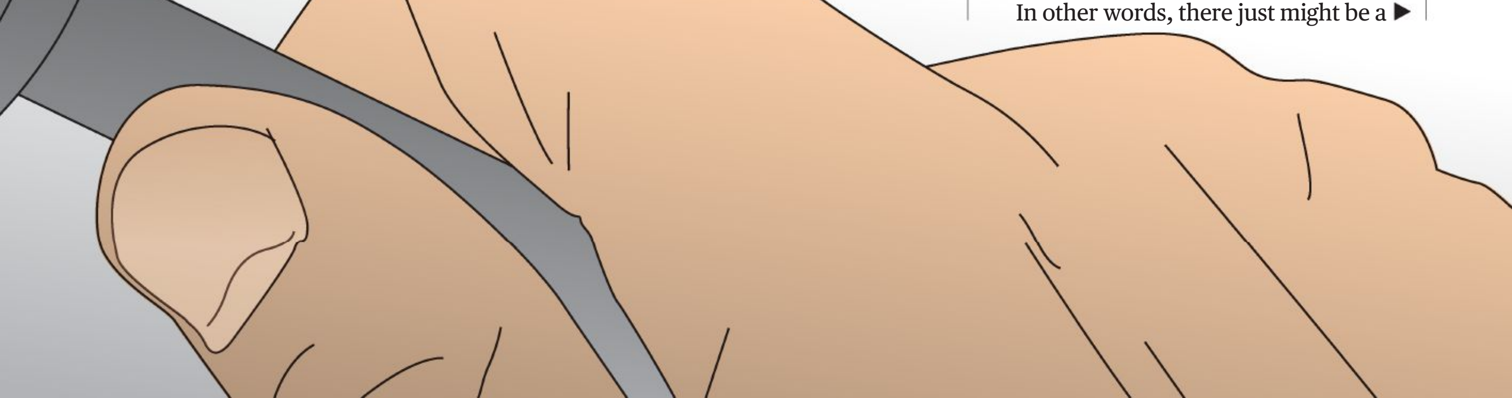
Combating "too big to fail," Section 622 of the Dodd-Frank Act tightened limits on acquisitions giving banks 10 percent or more of the liabilities in the U.S. banking system. In 2012, Democratic senators Sherrod Brown of Ohio and Tom Harkin of Iowa introduced a size-cap measure that would have forced drastic downsizing by at least the four biggest banks. (It didn't pass.) As recently as December, Democratic Senator Elizabeth Warren of Massachusetts said Citigroup and other banks used their political power to block a bank-breakup amendment to Dodd-Frank. "Let me say this to anyone who is listening at Citi: I agree with you. Dodd-Frank isn't perfect," she said on the Senate floor. "It should have broken you into pieces."

For all the calls for shrinking and breakups, being smaller doesn't necessarily equate to being safer

Still, as appealing as it is to critics of the banks, the smaller-is-better narrative has trouble explaining certain features of the modern financial system. Canada, for one. Canada's banking system is far more concentrated and top-heavy than the U.S. one, yet Canada's banks largely escaped the financial crisis and were judged the world's soundest in the World Economic Forum's "Global Competitiveness Report 2014-2015." (U.S. banks were 49th of 144 countries for soundness.) Lehman Brothers is also hard to explain, if smallness means safety. It was only the fourth-biggest investment bank by assets in September 2008, yet its failure triggered a global meltdown. Today's giants would have to be chopped finely to make each of the fragments substantially smaller than Lehman. "It is possible that a financial system with many more banks of a size just below the threshold for a breakup would be riskier, not safer," said a Bipartisan Policy Center report in October authored by Martin Baily, Douglas Elliott, and Phillip Swagel.

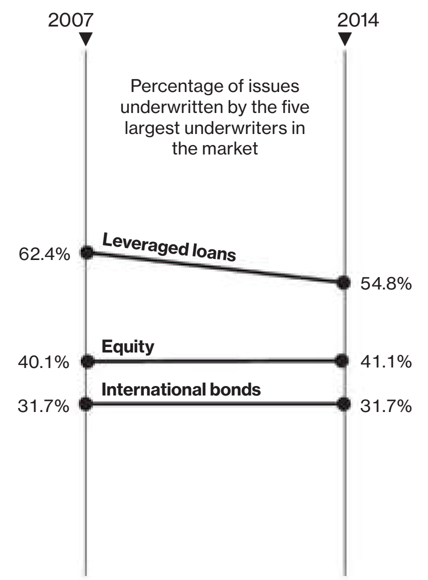
The argument that the big banks owe their massiveness to an unfair cost advantage in financing is plausible but not ironclad. Thomas Hoenig, the vice chairman of the Federal Deposit Insurance Corp. and a longtime critic of too-big-to-fail banks, asked the FDIC staff to survey the academic literature on funding advantages. Most studies said the big banks did have a funding edge, but a few found the opposite. One problem for researchers is that it's hard to determine whether any cost advantage for the big banks is the result of lenders' belief that the government stands behind them or lenders' faith that financial strength increases with size.

In other words, there just might be a ▶



Still Large, Still in Charge

The financial crisis barely changed the market share of the world's biggest banks



DATA: COMPILED BY BLOOMBERG

◀ business case for hugeness. A key argument against breaking up the big banks, says Bloomberg Intelligence analyst Alison Williams, "is that we live in a much more globalized world. If there's a market need for bigger, more multinational firms, banks are unlikely to get smaller." Loretta Mester, who's now president of the Federal Reserve Bank of Cleveland, co-wrote a research paper in 2013, when she worked for the Philadelphia Fed, questioning the conventional wisdom that banks exhaust their economies of scale once they reach $100 billion in assets. In fact, she wrote, the biggest banks benefit from more diversification and spreading their fixed costs, like information-gathering, over a bigger base of revenue. She did acknowledge that it's unclear whether the benefits to the banks of their bigness outweigh the potential costs to the system if they fail.

Stanley Fischer, who taught a whole generation of future central bankers at Massachusetts Institute of Technology and then became one himself, expressed skepticism about big-is-bad theories in a speech last summer, a month after being sworn in as vice chairman of the Federal Reserve. "Actively breaking up the largest banks would be a very complex task, with uncertain payoff," he said.

None of this is to say the big banks are secure; it's only to say that size isn't their only issue, or possibly even the main one. The Federal Reserve recognizes this most of the time, despite Yellen's remark to the House about spinoffs being "exactly what we want to see happen." Size, measured by liabilities and other forms of leverage, counts for only one-fifth of the Fed's proposed score in determining whether an institution is a GSIB ("gee sib"), i.e., a global systemically important banking organization. The other four criteria are interconnectedness, cross-jurisdictional activity, reliance on short-term funding, and complexity.

Dimon is trying to twist the other four knobs so he doesn't have to twist the size knob. One no-brainer is to give back $100 billion in deposits from institutional customers. Those funds count heavily against the bank's GSIB score because they're often from other banks (interconnectedness), from abroad (cross-jurisdictional activity), and transient (reliance on short-term funding). To reduce complexity, JPMorgan has ditched more than half of its "Level 3" assets, such as exotic derivatives, which are hard to value; sold off its business in trading physical commodities such as platinum; and severed ties to 5,500 "politically exposed persons." It redeployed the funds devoted to those businesses to safer pursuits. Dimon hasn't been able to avoid downsizing entirely: The bank is closing 300 of its 5,600 U.S. branches.

There's reason to worry that, for all of the effort that's gone into reform, the Fed and other agencies still aren't prepared for the next financial crisis. Anat Admati, a finance professor at Stanford Graduate School of Business, says the capital rules that the banks find onerous are still too light because a steep fall in asset values would render the banks insolvent and in need of another taxpayer-funded rescue. Banks could raise capital by selling more shares, but that would dilute the return to existing shareholders. Bank CEOs hate that idea—even though the compensation to shareholders for a lower return on equity would be greater safety.

In one key way, the danger is greater today: Congress was so outraged by bailouts in the last crisis that it barred the Federal Reserve from lending to a single institution in an emergency; Dodd-Frank dictates that aid must be offered broadly, and only with approval of the Treasury Department. That and similar hand-tying restrictions on the FDIC and Treasury "pose a threat to U.S. and global financial stability," wrote Glenn Hubbard, who was a chief economic adviser to President George W. Bush and is dean of the Columbia Business School, in a March 2 *Wall Street Journal* op-ed co-authored with Harvard Law School professor Hal Scott.

Dimon is trying to make JPMorgan Chase safer without giving up its scale and global reach

Shadow banking—saving and lending outside the regulated banking system—is another source of danger. A run on the shadow banking system is what triggered the financial crisis. Regulators are trying to rein in shadow banking by tightening controls on regulated banks, since the two are linked. But Federal Reserve Governor Daniel Tarullo, the point person on regulation, said in Senate testimony last year that "we have yet to address head-on the financial stability risks from securities financing transactions and other forms of short-term wholesale funding that lie at the heart of shadow banking."

Sheila Bair, who was chair of the FDIC from 2006 to 2011, scoffed in a 2013 essay for the economics website VoxEU that the government was agonizingly slow to designate nonbanks as systemically important financial institutions, even though regulators "were able to figure out that AIG and GE Capital were systemic in a nanosecond in 2008 when bailout money was at stake." Her essay is reprinted in an e-book, *Post-Crisis Banking Regulation*, published this month by the Center for Economic and Policy Research.

The problem with financial regulation is that some of the most important issues are the hardest to understand. In contrast, "break up the banks" is bracingly clear, as visceral as the swoosh of a sword. New York Federal Reserve Bank President William Dudley—under pressure from Elizabeth Warren and others to do something—shook Wall Street in an October speech that warned misbehaving banks that if they don't clean up their acts, "financial stability concerns would dictate that your firms need to be dramatically downsized and simplified so they can be managed effectively." In January, Dimon took a shot from fellow Wall Streeters: A team of Goldman Sachs analysts said that because of rigorous capital rules, JPMorgan Chase would probably be worth more broken into two or four pieces than it is whole. And at JPMorgan Chase's investor day on Feb. 24, Evercore ISI analyst Glenn Schorr essentially asked if Dimon is banging his head against the wall by resisting incentives to get smaller. "Is the Fed going to look at that and say ... 'How many ways do we need to tell you you need to shrink both in size and complexity?' "

Clearly the banks haven't shaken the too-big-to-fail label. But being big isn't necessarily dangerous. And getting smaller isn't necessarily safe. Ⓑ

—With Dakin Campbell

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Let Voters Take on Gerrymandering

The Supreme Court will decide on Arizona's redistricting controversy

It's hard not to be cynical about politics when legislators pick their voters before voters pick their legislators. Arizona has devised a creative way to address this problem—and it should be allowed to proceed.

On March 2 the U.S. Supreme Court heard arguments in a case brought by the Arizona legislature against the Arizona Independent Redistricting Commission. On one level, the case is about gerrymandering, the practice by which state legislators draw their own districts to maximize their chances of reelection. Technology has brought gerrymandering to new levels of absurdity, which have made elections less competitive and partisan differences more entrenched.

On another level, the case is about how much deference elected officials owe the public. On both levels, it's not a difficult call. Rarely has the court curtailed rights that have been expressly granted to voters by a state legislature. It shouldn't start now.

In Arizona, voters gathered enough signatures to put a proposal on the ballot in 2000 that turned the job of drawing legislative districts over to a five-member commission mostly appointed by the legislature. Members of the legislature didn't care for the commission's maps, so they sued. Their argument rests on a clause in the U.S. Constitution that states, "The times, places, and manner of holding elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof."

Sounds clear enough, but context can be everything. The sentence following the line in the Constitution grants Congress the power to set or override state election laws, because the Founders feared that some recalcitrant states wouldn't send representatives to Congress, denying the people the right to exercise their authority. Therefore, the idea that voters have "usurped" a power that was included in the Constitution to protect them makes no sense.

In addition, briefs submitted by the law's defenders argue convincingly that when the Constitution was written, "legislature" was understood to mean the people or the state generally, not an elected body. That interpretation isn't novel: The Supreme Court effectively affirmed it in a 1916 case upholding the right of voters to veto a districting law passed by the legislature.

If the court overturns that precedent, any election law established by initiative could become void, and the initiative process—which helped open the ballot to women in Arizona and has been used to advance all types of election laws around the country, from party primaries to voter identification requirements—would be severely restricted.

It's in the very language the Arizona legislature cites in support of its argument: How states run their elections is up to the states. If a state wants to limit its initiative process so it excludes election laws, it's certainly free to do so. But if a democratically elected body confers power upon the people to exercise lawmaking authority, the court has no business taking it away.

The Appalling Murder Of Boris Nemtsov

Conspiracy tales spun by official spokesmen do little for Putin's cred

The thousands who marched in Moscow on March 1 in honor of the murdered opposition politician Boris Nemtsov did so because they recognize just how much has been lost with his death. Nemtsov had been brave enough to tell the truth in Russia under President Vladimir Putin.

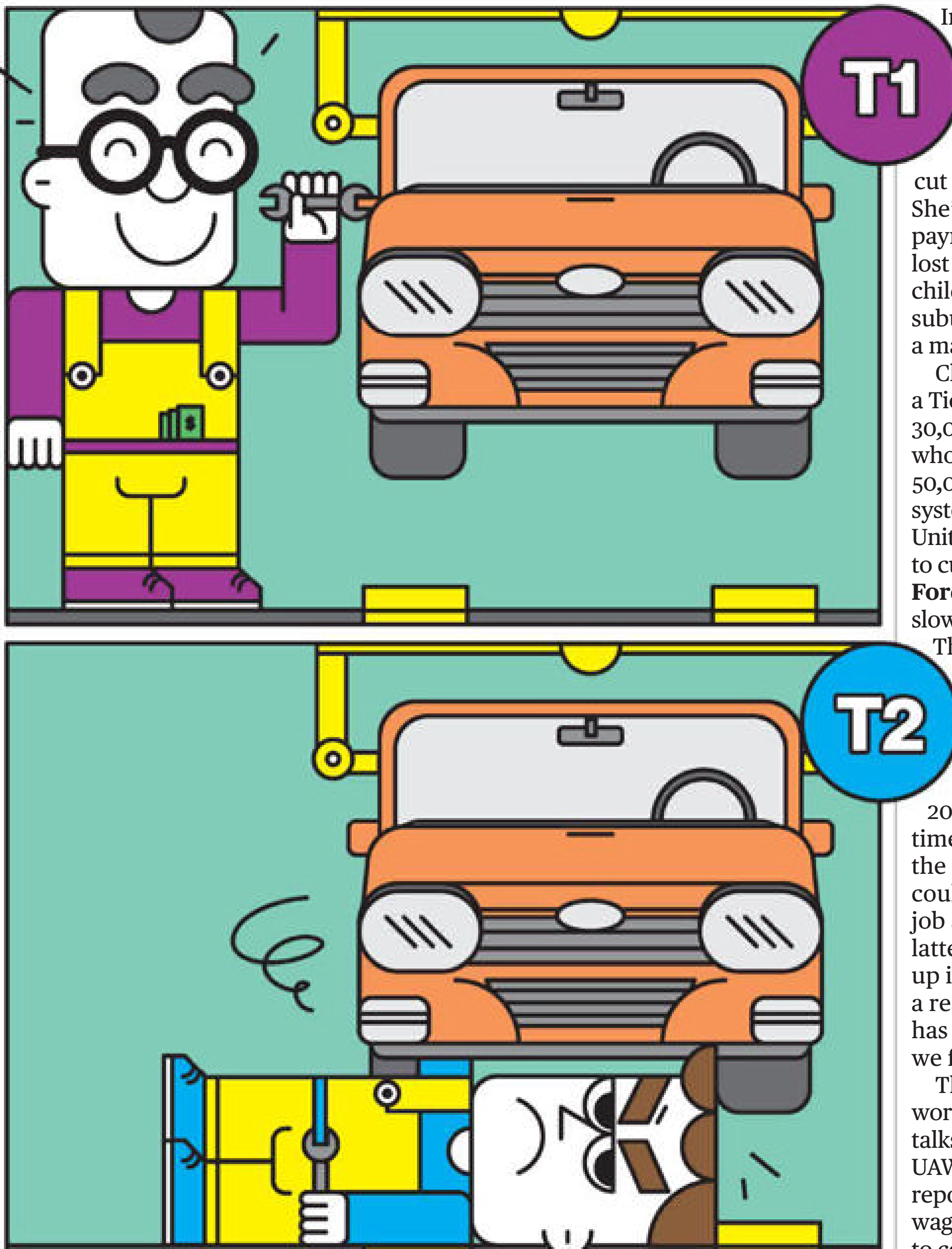
The official response to this apparently professional hit in the shadow of the Kremlin has been distasteful. Government spokesmen have spun tales of conspiracy—involving Islamists or Nemtsov's fellow opposition leaders—to distract from the most plausible explanation: Putin and his state news media have created an atmosphere that encourages such violence. Putin has announced an investigation and should be encouraged to follow through. Given the record of assassinations of inconvenient figures, however, it's hard to hope for a truthful reckoning.

There's no evidence the Kremlin ordered Nemtsov's killing, and it would have as much to lose as to gain from such a public execution on one of the most closely surveilled sidewalks in Russia. Nevertheless, since Putin returned to the presidency in 2012, he's systematically stirred up hatred for his political opponents, tarring them as members of a treacherous fifth column. Most recently, pro-Kremlin legislator Dmitriy Sablin joined in creating the so-called Anti-Maidan movement of ultranationalists, Communists, and a Hells Angels-style motorcycle gang to counter protests. The government has also licensed Russian nationalists and the security services to pursue a covert war in Ukraine, a connection Nemtsov was threatening to expose with a report on the Russian soldiers fighting and dying there.

The most frightening interpretation of the liberal politician's death is that the alliance of security service officers and ultranationalist thugs Putin has unleashed is now beyond his control.

Nemtsov's death may not change things in Russia; much of the population appears to be caught up in a nationalist fervor. But outside the country, perhaps it can end any illusion that Putin's toughness is a trait to be admired. He's taken Russia back to an old and discredited form of government. B

ILLUSTRATION BY OTHER MEANS



Can You Spot The Difference?

▶ Veterans earn twice the pay of newbies who do the same work

▶ "As lower-paid workers, we feel cheated"

In 2010, Sharron Chambers was a member of the middle class, earning between $40,000 and $50,000 a year at **Chrysler**'s sedan plant in Sterling Heights, Mich. Since then she's had her pay cut in half while doing the same work. She's been unable to make the monthly payments on her car and house and has lost both. She had to move with her two children into her sister's town house in suburban Detroit. They had to sleep on a mattress on the floor.

Chambers has the misfortune of being a Tier 2 wage earner, one of more than 30,000 union autoworkers in the U.S. who make about half as much as their 50,000 Tier 1 colleagues. This caste system was created in 2007, when the United Automobile Workers agreed to cut starting wages to help Chrysler, **Ford**, and **General Motors** amid a slowing economy and falling truck sales. The contract protected the $28-an-hour wage of existing workers but created a class of employees with less tenure who started at $14. Benefits were pared back, too.

Chambers faced a dilemma in 2010. She could stick with her part-time job paying $28 an hour and run the risk of having her hours cut. Or she could opt for the security of a full-time job at the same plant. She chose the latter. Treated as a new hire, she ended up in Tier 2. "Working in a factory was a really good job," she says, "and now it has gone away. As lower-paid workers, we feel cheated."

The UAW will raise the plight of Tier 2 workers in the summer when contract talks begin with Chrysler, Ford, and GM. UAW President Dennis Williams told reporters in December that he wants wage gains for both tiers. "I often listen to companies talking about being competitive," he said. "The only thing they talk about in public is doing it on the backs of the workers."

In Detroit just over a decade ago, a new factory hand earned as much as $60,000 a year, enough to buy a new home and put a couple of kids through college. When the UAW agreed in 2007 to the $14-an-hour starting wage, U.S. automakers were struggling and rivals were building plants in Mexico and in the South, where the laws favored non-union workers. The UAW didn't have

ILLUSTRATION BY 731

much leverage. The contract set wages back a century: Punch the numbers into a U.S. Bureau of Labor Statistics calculator that adjusts for inflation, and you'll find Henry Ford paid about the same—in 1914.

By accepting lower pay for new hires, the UAW indirectly gave manufacturers across the U.S. permission to cut wages for nonunion workers. A quarter of auto parts employees make less than $13 an hour for jobs that once paid $18, according to the National Employment Law Project, an advocate for low-wage and jobless workers.

Recent Chrysler hires still make more money than many Americans, though not necessarily enough to join the middle class. A 2011 contract gave new hires $15.78 an hour and capped them at $19.28. Chris Bonk, 21, earns that starting salary at the Sterling Heights stamping plant. He owns a new Ram pickup but can't buy a home. Instead he's living with his dad, who makes $28 an hour working at the same plant. "Could I move out and start a family?" Bonk asks. "No way. Not without another income."

Half of Chrysler's workers make the Tier 2 wage—vs. 25 percent at Ford and 20 percent at GM—because Chrysler was in the worst shape. Only Chrysler has no limit on Tier 2 workers, and the automaker has hired thousands of them. Class warfare hasn't broken out on the factory floor, but Chambers says there's tension. Workers like her feel particularly aggrieved, she says. After Chrysler cut her wages, her income shrank to about $30,000 a year, $6,000 above the federal poverty line for a family of four. "Whatever happened to equal work for equal pay?" she asks. "Morale is very low. It seems every day we hear about someone arguing over something."

Veteran workers dislike the wage disparity, yet they point out they haven't had a raise in nine years. In real terms, the average industry wage has fallen 21 percent since 2003, according to the National Employment Law Project. GM is expected to earn $7 billion this year; Ford, $6 billion. In 2014, Chrysler, part of Fiat Chrysler Automobiles, earned an adjusted net profit of $2.4 billion, up from $1.8 billion in 2013. Workers have helped boost productivity to record levels, says the Center for Automotive Research in Ann Arbor, Mich.

"Whatever happened to equal work for equal pay? Morale is very low."
—Sharron Chambers, Tier 2 worker at Chrysler

As the UAW kicks off contract talks, Williams will feel pressure to get raises for both tiers. Derf Shockley, a 26-year-veteran forklift operator at the same plant as Bonk, says the newer workers need a raise, but so does he. "Without overtime, my pay is just sustainable," he says. Because Tier 2 workers got a raise in the 2011 labor deal, the veterans want one now. Williams's challenge in the talks is to make sure neither group feels it was sacrificed for the other.

Sergio Marchionne, who runs Fiat Chrysler, earlier this year called two-tier wages "almost offensive." His solution? Give everyone the lower wage and pay bonuses tied to earnings. That's a nonstarter for union leaders. *—David Welch*

The bottom line With contract talks between the UAW and the Big Three set for summer, Tier 2 workers already are a hot issue.

Transparency

The Hunt for China's Real Growth Numbers

▶ **Economists using a "Li Index" find GDP growth is 5 percent**

▶ **The "official numbers go through a smoothing process"**

Before he became premier of China, Li Keqiang told U.S. diplomats that to get to the truth about China's economic performance, you have to bypass the official number for gross domestic product and instead study real-world indicators such as electricity output, traffic on freight trains, and the growth of credit. The consulting firm **Oxford Economics** has created a "Li Index," which tries to estimate Chinese growth by using Li's favorite measures along with a few others. Contrary to the official GDP number, Oxford's Li Index suggests Chinese growth has been stumbling along at less than 5 percent for a few months now. The Chinese government says the 2014 economy grew 7.4 percent.

Number crunchers have traditionally said China must grow at least 7 percent to 8 percent annually to generate enough jobs and prosperity to keep protesters from flooding Tiananmen Square. Economists have long suspected that China's "official numbers go through a smoothing process" that mutes the highs and lows of growth, says Adam Slater, senior economist at Oxford Economics, who works on the Li Index. China may be already expanding at a much lower rate than the official numbers suggest, without a significant uptick in unrest.

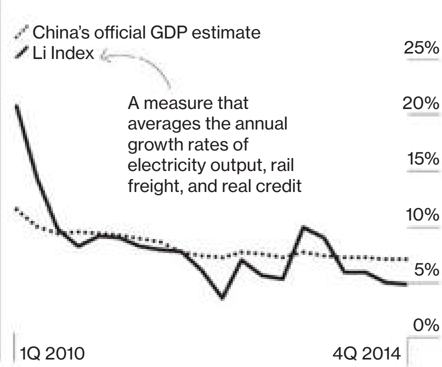
Oxford offers an explanation for the subdued public reaction in China to slower growth. China's shrinking population and the slowing of migration to cities from the countryside mean there are enough jobs to go around in urban centers, even as GDP growth eases. "The rate of growth needed to preserve urban employment is likely to slow to around 5 percent by 2020," says Oxford's Clare Howarth, head of Asia-Pacific research.

From 1979 to 2013, urban employment in China rose about 3.7 percent a year while official GDP growth was about 9.8 percent. This encouraged the view that high growth rates were needed to generate acceptable levels of employment and maintain stability. As recently as 2013, Li indicated that growth well above 7 percent remained a critical priority for Beijing.

China may run out of cheap labor sooner than anticipated. Evidence points to urban population growth approaching only the 2 percent mark from 2014 to 2020; it was 6 percent in the late 1990s. It's entirely possible that urban population dynamics—and social stability—over the next several years ▶

How Fast Is China Actually Growing?

Change in economic expansion from a year earlier



DATA: OXFORD ECONOMICS, HAVER ANALYTICS, NATIONAL BUREAU OF STATISTICS OF CHINA

◀ can be sustained by 4.5 percent to 5 percent growth.

This is both bad news and good news for the global economy. Bad news, because a Chinese slowdown will rob the world of another vital growth engine amid already tepid demand. Good news, because Li and President Xi Jinping have more latitude to rebalance the economy without triggering unrest.

They'll need to act fast. Middle-class incomes already are stagnating. Unless the country can create better-paying jobs, particularly in the services economy, this period of labor calm won't last. "For the past few years, China's stated policy has been to sacrifice the pace of growth for greater quality and sustainability," says Simon Grose-Hodge, a Singapore-based investment strategist at LGT Group, a private banker. "This has always proven to be a precarious transition for emerging-market economies." —*William Pesek*

The bottom line China may not need to grow by 7 percent to 8 percent to generate enough jobs for a slowly expanding workforce.

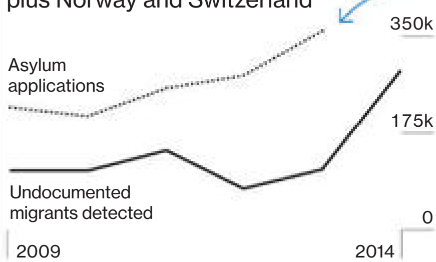
Deadly Crossings

Since 2000 at least
28,131
migrants have died trying to reach Europe

60%
of all asylum applications are filed in Germany, Sweden, and Italy

A March 4 rescue off the coast of Sicily

Magnet Europe
2014 set a record for asylum requests to European Union states, plus Norway and Switzerland



Applications rose
64%
in the third quarter of 2014 from the second

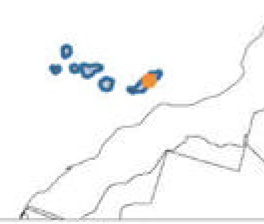
Flight to Europe
Number of asylum applications, 3Q 2014

- 0–499
- 500–1,999
- 2,000–4,999
- 5,000–19,999
- 20,000+

Schengen Area and EU states

Crossing points

In 2013, France rejected
83%
of asylum applications, which may explain its low number of applicants in 2014



Migration

In Europe, the Refugees Keep Coming

▶ Attempts to stop asylum seekers in Libya and Ukraine have failed

▶ "We're between the devil and the deep blue sea"

On a wintry day in early February, four rubber dinghies—each loaded with more than 100 people—pushed off the Libyan coast into the icy Mediterranean and headed toward Europe. By the time the Italian coast guard reached the first boat on Feb. 9, seven of the would-be migrants had frozen to death. An additional 22 died as they were being ferried to shore through 25-foot waves. On Feb. 11, a cargo ship discovered nine other survivors clinging to what was left of the second and third dinghies. Of the fourth, no trace was ever found.

About 56 million people in the world have been displaced by conflict, the highest number of people pushed out of their homes since World War II. The vast majority are fleeing Africa and the Middle East, and many have their sights on Europe. This is putting pressure on asylum systems across the continent as the European Union struggles to form a consensus among governments with little political incentive to deal with a humanitarian catastrophe.

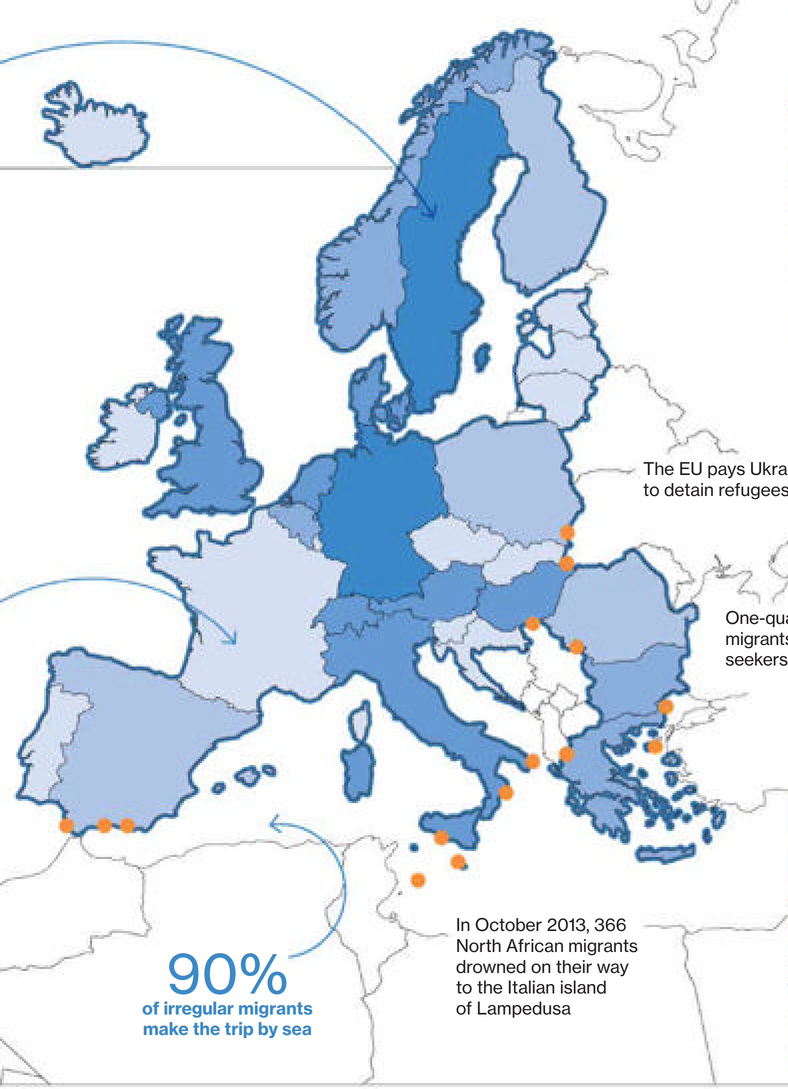
In 2014 more than 170,000 migrants arrived by sea in Italy, according to the International Organization for Migration (IOM). An additional 3,300 died trying. Italy's proximity to Libya makes it a primary destination for migrants from North Africa. In the first two months of 2015, roughly 8,000 people risked the dangerous crossing—a 45 percent increase from the same period a year earlier—and more than 300 died.

Many of the arrivals had fled persecution and war in their home countries, only to be threatened with beatings or death by traffickers in Libya. "As soon as the seas calm, there'll be many more," says IOM spokesman Flavio Di Giacomo. "As one Gambian man who arrived in Italy told me, 'We're between the devil and the deep blue sea.' It's an expression, but in this case it's also exactly what's happening."

The early part of the crisis had, in fact, begun with a deal with the devil. Starting in the early 1990s, European policy on asylum seekers gradually evolved until the top goal was to minimize the number of people who got a chance to apply. In 2004, Italy's then-Prime Minister Silvio Berlusconi struck a secret deal with dictator Muammar Qaddafi to prevent migrants from leaving the coast of Libya. Qaddafi made the arrangement explicit in 2010, shortly before he was deposed, when he tried to get the Italians to pay him €5 billion a year in exchange for his services. He made the demand in a joint press conference with Berlusconi in Rome, saying that without his cooperation Europe would become "another Africa." Said Qaddafi: "Tomorrow, Europe might no longer be European and even black as there are millions who want to come in." Italy declined to meet Qaddafi's terms but did pledge €5 billion in investments. His fall spelled the end of that arrangement—and since then the refugee boats have been heading toward Italy.

Other EU member states forged accords with Libya, as well as Morocco, Tunisia, Ukraine, and others. The EU spent billions of euros to train and equip border guards and build up

CLOCKWISE FROM TOP LEFT: FRANCESCO MALAVOLTA/AP PHOTO; EMRAH GUREL/AP PHOTO; GIORGOS MOUTAFIS; LAURA TARRAGA GARRIDO/REX/AP PHOTO




A refugee camp for Syrians in Turkey

Apprehending migrants off of Greece


Africans crossing into Spanish territory

GRAPHIC BY BLOOMBERG BUSINESSWEEK. DATA: FRONTEX, THE MIGRANTS FILES

countries' capacity to process and host refugees before they could set foot on EU soil to apply for asylum. Keeping refugees from applying and receiving asylum is important to every EU member, because a citizen or resident of one nation has the right to travel to and live in all the others.

In Ukraine, civil and military upheaval has caused the EU program to deteriorate, though not as dramatically as in Libya. Ukraine continues to build and staff detention camps to house refugee Afghans, Somalis, and other survivors of conflicts, effectively keeping them from reaching the EU and asylum.

International refugee law, as formulated in 1951 and 1967, declares that no nation can turn away a person in need of protection and that refugees have a right to seek asylum upon arrival. By outsourcing their immigration control to other countries, EU members can claim to be technically in observance of the law. But the setup has left asylum seekers in unstable and sometimes despotic countries, exposed to abuse, extortion, rape, neglect, and forceful and illegal deportation to their home countries. From May 2009 to the beginning of the Arab Spring in 2011, Italian ships intercepted at least 1,000 people at sea and handed them over to Qaddafi's Libya—a practice later found to be in breach of the European Convention on Human Rights by the European Court of Human Rights.

European Commission President Jean-Claude Juncker has included among his priorities the development of a new "European Agenda on Migration." The challenge for policymakers will be to reconcile the continent's legal obligations under international law with the instinct of national politicians to slam the door shut. Of the migrants who arrived in Europe last year, about half will be judged to have a valid claim to stay.

One possible approach, suggested by some policymakers, is the establishment of a process in which asylum seekers who go through countries such as Jordan, Lebanon, or Kenya could apply without making hazardous crossings into Europe. But anti-immigration sentiment and the fear of terrorism make it likely that only a token number of applicants will be admitted—leaving the others to risk the same dangerous journey.

"These people will come anyhow," says Christopher Hein, director of the Italian Council for Refugees. "We have no means to decide who is coming or how many are coming. But what we can decide is how they will come."
—*Stephan Faris*

The bottom line With 56 million displaced by conflict worldwide, the EU has become a favorite destination for asylum seekers.

Insurrections

India Lands a Blow Against Maoist Rebels

▶ Rewards and crackdowns have weakened the guerrillas

▶ "We are mustering the courage to stand up"

The hills above the village of Tikanpal in central India are known for two things: one of the world's largest iron-ore deposits, and a jungle full of Maoist guerrillas who attack anyone trying to mine it. ▶

◀ The district is a weather vane for a conflict that former Prime Minister Manmohan Singh called the greatest threat to India's internal security, one that's killed more than 10,000 people and raged over a third of the country, particularly in the mountain and forest villages of the eastern and southern half of India.

The government of Prime Minister Narendra Modi, who's been in office since May, has offered cash and amnesty to rebels who surrender and ramped up a military counteroffensive to punish those who don't. It seems to be working. "The level of influence of Maoists is weakening," says Bhavin Vyas, political and security analyst at London-based Risk Advisory Group, an independent global risk management consulting firm. "That doesn't mean the Maoist threat to companies has diminished significantly yet. They still face risks."

The Maoists, who use everything from bombs to bows and arrows, have been fighting the authorities since 1967. They espouse an egalitarian philosophy and a policy of violence against the agents of capitalism. They also terrorize villagers who don't follow the party line. The insurgents operate in about a dozen of India's 29 states and prevent industrial activity by attacking mining operations, other companies, and police stations.

Defeating the Maoists could unlock $80 billion of investment in eastern and central India, according to a 2010 report by London-based securities house Execution Noble. More than 90 percent of India's iron-ore deposits and 85 percent of its coal—along with a host of other ores, gems, and minerals—are in areas affected by the insurgency.

In 2009 the government began an operation known as Green Hunt, which combined a nationwide coordinated military campaign with village-level economic development to win over local populations. Modi has beefed up the campaign. The number of Maoist surrenders more than doubled last year, to 674, and fewer civilians and security personnel died than in any year since 1998, when the government began making the data available.

One of the bloodiest battlegrounds is Chhattisgarh, a landlocked state the size of Greece that accounts for 38 percent of India's tin, a quarter of its diamonds, and almost a fifth of its iron-ore reserves. **Essar Steel** and **Tata Steel** plan to invest $1.5 billion and $2.2 billion, respectively, to build plants in the state's Bastar Range.

"For the first time we have given them a bloodless solution to a bloody problem."
—S.R.P. Kalluri, inspector general of police, India's Bastar region

In the front line of the fight in Chhattisgarh is Tikanpal, a village of 1,600 tribal people in the forest below the iron-rich Bailadila hills, eight hours' drive from the nearest city, the state capital of Raipur. For the past decade, Tikanpal was considered unsafe to enter without a military escort. Now it's slowly opening up to the outside world. Children who once stayed home walk to school along the winding mud roads. Locals get clean water from tanks filled by solar-powered pumps. Government vehicles arrive unescorted, bringing food for the poor and materials for roads and schools.

"After a long struggle, we are mustering the courage to stand up," says Sinu Tati, 45, sitting in his mud-walled hut with clay roof tiles. "A small ray of hope has emerged." It wasn't this way last May, when Tati and a dozen other villagers were rounded up by the rebels and marched at gunpoint through the forest in temperatures exceeding 100F (38C), to a guerrilla camp. The fighters took turns torturing them through the night for ignoring their instructions or

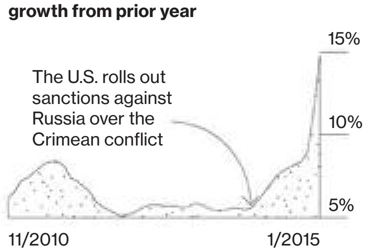
DARKO VOJINOVIC/AP PHOTO

Sanctions Russia's Woes Show No Sign of Abating

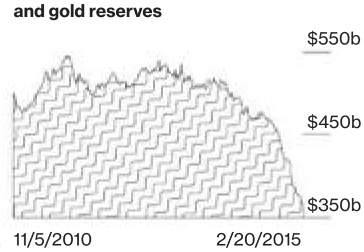
Vladimir Putin has survived politically, thanks to Russians' support for his assertive foreign policy. But sanctions over Ukraine and a collapse in oil prices have shaken the economy, draining its foreign exchange reserves. —*Matthew Philips*

Economic Pain

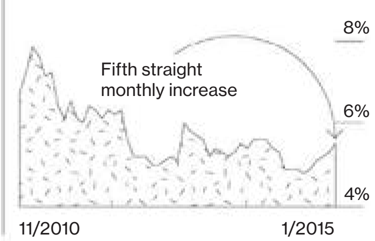
Russian core inflation growth from prior year



Russian foreign exchange and gold reserves

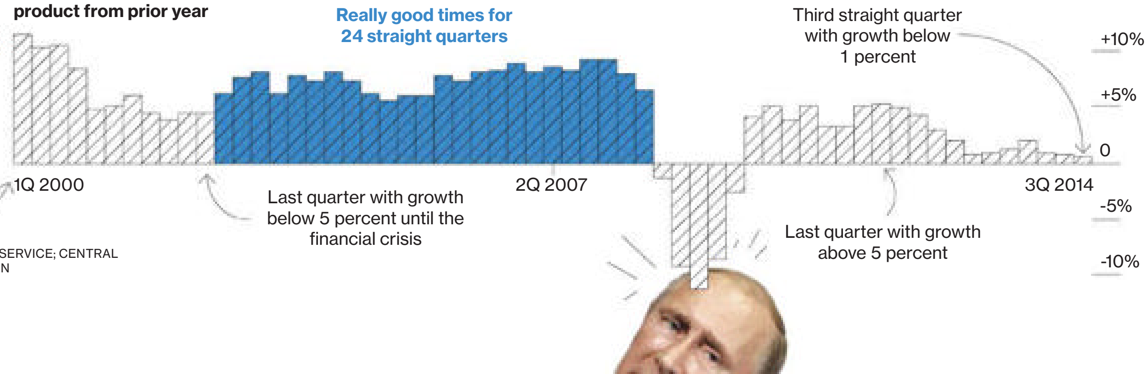


Russian unemployment rate



Rising and Tumbling

Change in Russian gross domestic product from prior year



DATA: FEDERAL STATE STATISTICS SERVICE; CENTRAL BANK OF THE RUSSIAN FEDERATION

refusing to give money to the rebels, Tati says, lifting his shirt to show a scar that snakes from his lower back to his left shoulder blade. In the morning the Maoists released them, and they returned home carrying the body of a villager who'd been beaten to death.

The government's decision to offer incentives to rebels to lay down their arms has made a big difference, says S.R.P. Kalluri, inspector general of police of the Bastar region. The outreach includes counseling for Maoist family members who want reassurances before they renounce the struggle. A surrender policy offers senior rebels jobs and as much as 10 million rupees ($162,000) each, Kalluri says. "For the first time we have given them a bloodless solution to a bloody problem: Come to us. We will give protection. You won't go to jail. Take land, money, and job," says Kalluri, who says he receives regular death threats. "It's working wonderfully."

The Maoists have by no means been defeated. In December, after months of calm, they killed 14 members of the Central Reserve Police Force in an ambush in the Bastar region. "They still have the capacity to engineer major strikes," says Ajai Sahni, executive director of the Institute for Conflict Management in New Delhi. "They will strike big to show their strength when they will have an opportunity." *—Bibhudatta Pradhan*

The bottom line India is having success dealing with a 48-year-old rebellion that has kept the country from developing its iron-ore deposits.

Trade

One Hot List You Don't Want to Be On

▶ A U.S. government report names names in the business of fakes

▶ China is the "primary source of counterfeit products"

Michael Froman, the U.S. Trade Representative, released on March 5 the "notorious markets" list, a global name-and-shame exercise designed to identify centers for counterfeit goods and big-time dealers in everything fake, from jeans to car parts, as well as digital pirates who illegally peddle copyrighted music and video. The USTR has published the report annually for five years and says it's paying off. "We have seen businesses that resisted change for years turn the corner toward legitimate commerce," says Robert Holleyman, the deputy trade representative.

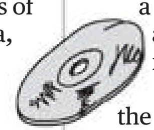
While the notorious markets deal mostly in consumer goods, a substantial number operate virtually. An example is **4shared.com**, which streams and downloads pirated media, the USTR says. Froman's team thinks 4shared is based in the British Virgin Islands, but can't be sure. All they know is that U.S. recording executives have complained loudly about the site. Other listed purveyors of streaming piracy are in China, Russia, Poland, and the U.K. One may even operate out of Canada.

Companies can get off. In 2011, Taobao, a thriving Chinese online marketplace, and its parent, **Alibaba Group**, were deemed notorious. Alibaba was three years away from executing its record $25 billion initial public offering. Aware that a reputation for tolerating piracy would disrupt its access to U.S. capital markets, the company began removing counterfeit goods from Taobao and kicking suspect sellers off the site. With the aid of the USTR's former general counsel, James Mendenhall, Alibaba got off the list in 2012. At the time he was a registered lobbyist for Alibaba, and he still is.

The U.S. government continues to watch Alibaba closely. The report took note of China's own enforcement efforts against Alibaba and Taobao: The USTR "is concerned about these developments but does not relist Alibaba/Taobao at this time." Alibaba didn't return calls for comment, but in an October letter to the USTR it said it had "pledged to expedite" the processing of requests to shut down piracy.

China's **Xunlei.com**, a provider of download and video playback services, may be this year's biggest winner, having been cleared because of its efforts to remove unlicensed content and to negotiate agreements with copyright holders. Russia's **VKontakte.com**, a social networking site that the USTR says has hosted pirated content, appealed in vain to be removed from the list, according to the agency.

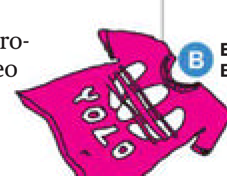
Ukraine saw a rise in the number of online sites that operate in the shadows. In Latin America, Ciudad del Este in Paraguay has been the location for a market used for 15 years by organized crime as a hub for traffic in counterfeit goods. Froman's report cited recent attempts by the city to create a "legitimate marketplace," but added that "sustained enforcements efforts" need to continue.



This year's report highlights for the first time Internet domain registrars as an industry that requires scrutiny. Registrars, which reserve and manage a particular Web address for a fee, are supposed to act when notified of illicit activity on sites using their domains. According to the USTR, "Some registrars apparently even advertise to the online community that they will not take action against illicit activity."

One nation looms large. China is the "primary source of counterfeit products," according to the trade representative, and Chinese-linked companies manage the wholesale and retail distribution of pirated software, music, and movies. Says the report: "Worldwide, from the Americas, to Africa, to Eastern Europe, and in Southeast Asia, Chinese-origin counterfeit goods find their way into marketplaces, businesses, and homes." *—Carter Dougherty*

The bottom line A company can stay on the notorious markets list for years but can get off by honoring intellectual-property rights.



Defending Intellectual Property

The "notorious markets" list is a rough catalog of what the U.S. Trade Representative considers some of the world's least scrupulous websites and shadowy enterprises. Here are a few notable entries.

This neighborhood has hundreds of shops

Harco Glodok
Jakarta: consumer electronics center; distribution point for counterfeiting network

Zengcheng International Jeans Market
China: sells counterfeit merchandise online

Cuevana.tv
Argentina: illegal video streaming

La Bahia Market
Guayaquil, Ecuador: pirated DVDs, CDs, clothing with logos

Darkwarez.pl
Targets Polish video gamers and infringes on game copyrights

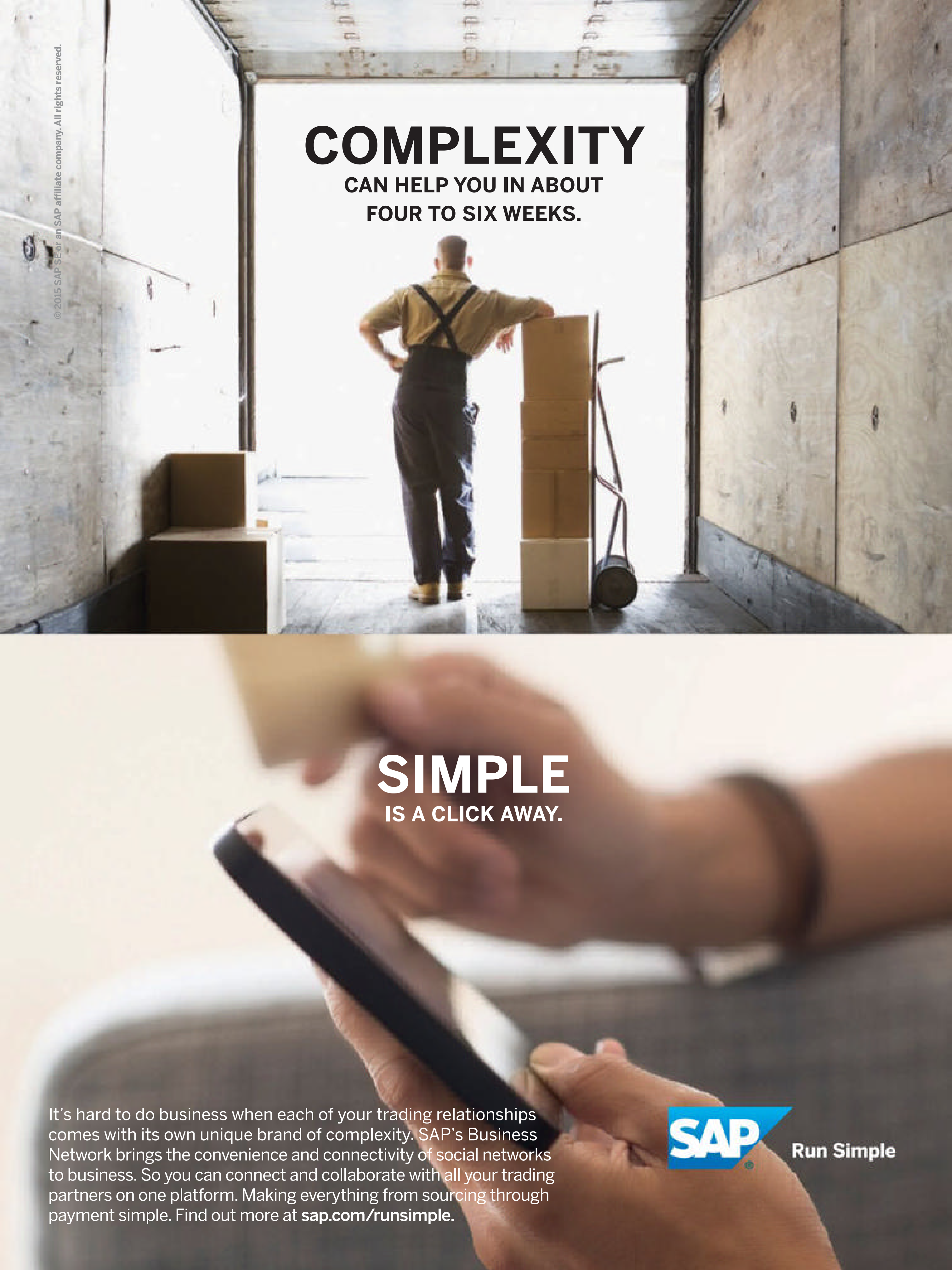
Ciudad del Este
Paraguay: hub for counterfeit goods

Cited for 15 years by the U.S. government

DATA: OFFICE OF THE U.S. TRADE REPRESENTATIVE

Edited by Christopher Power
Bloomberg.com

ILLUSTRATION BY 731


COMPLEXITY
CAN HELP YOU IN ABOUT FOUR TO SIX WEEKS.
SIMPLE
IS A CLICK AWAY.
It’s hard to do business when each of your trading relationships comes with its own unique brand of complexity. SAP’s Business Network brings the convenience and connectivity of social networks to business. So you can connect and collaborate with all your trading partners on one platform. Making everything from sourcing through payment simple. Find out more at sap.com/runsimple.
SAP
Run Simple

Meet Death, Buy His Raincoat

Oland cape, $355

▶ **Stutterheim celebrates "Swedish melancholy at its driest"**

▶ **"It's important to create stories that people actually believe in"**

When Alexander Stutterheim decided to sell raincoats out of his Stockholm apartment five years ago, he wanted to set a melancholic scene. The then-38-year-old copywriter hung posters of film director Ingmar Bergman on the walls and played sad Swedish jazz. When customers showed up, the feelings that stirred inside them moved them to open their wallets. The 200 coats, handsewn at a factory in Sweden with poems tucked in the pockets and priced at 1,500 kronor ($180) each, quickly sold out.

"Swedish melancholy at its driest" has since become the slogan for **Stutterheim Raincoats**. If you're feeling low, you can buy one, for $368 or $1,342 or somewhere in between. "Many brands do everything, but we have gone all in on a Swedish raincoat," says Stutterheim, founder and creative director of the company. Most of its styles feature rubberized cotton. Some are cut wide, others are narrow. Brightly colored coats are available. On its website, the word "antidepressant" appears in large type—and links to one of Stutterheim's latest raincoats, a relatively cheerful multicolored model called Stockholm Carousel.

Black, however, is the best-seller—and the color of Stutterheim's grandfather's raincoat, which inspired the enterprise. Stutterheim remembers he was sitting in a cafe during a rainstorm, with people outside hurrying past with what he describes as ugly umbrellas and little more than wet newspapers to cover their heads. "It was a totally forgotten piece of clothing," says Stutterheim. Some time later he discovered his grandfather's old fisherman's raincoat in an abandoned barn on Arholma, an island in the Stockholm archipelago. Unable to find a similar one in the city, he decided to make a contemporary version.

What for Stutterheim was initially

THE SEVENTH SEAL: MOVIESTORE COLLECTION/ALAMY; CAPE: COURTESY STUTTERHEIM; WEST:INF PHOTO/CORBIS; COATS: COURTESY STUTTERHEIM (2)

A brooding Kanye wears Stutterheim

an art project turned into a business. Stutterheim raincoats are now shipped worldwide. The company is seeing strong growth in Europe and the U.S., with sales estimated to reach about 40 million kronor this year, up from 1.5 million kronor in 2011, according to marketing director Johan Loman. Its competitors include rainwear sold at sporting goods stores and brands such as **Barbour**, whose waxed jackets, once worn mostly for hunting and fishing, became popular with young, trend-conscious customers after Kate Moss was spotted wearing one. Stutterheim's customers range from berry-picking enthusiasts to Brooklyn hipsters. Stutterheim retailers include **Barneys New York**, which sold a limited edition black raincoat with gold buttons designed by Stutterheim and Jay Z for the 2013 holiday season. Proceeds from sales of the $675 coat went to the hip-hop artist's Shawn Carter Foundation, which helps underprivileged students get a college education.

The company remains melancholy despite its successes. And it's reveling in tales of woe. Celebrating "inner and outer demons," as its website states, Stutterheim bestows a "Most Melancholic Person of the Year" award to a well-known, creative Swede. Writer Bodil Malmsten took home the prize in 2012, and singer-songwriter Ane Brun did in 2014. (2013 must have been a happy year in Sweden, because there was "no one melancholic enough" for the prize.) As the Stutterheim website poses rhetorically, "What if August Strindberg, Ingmar Bergman, Karin Boye and hundreds of other famous Swedish artists had felt happy all the time?"

"There's a long history, especially established in the Romantic movement, that the melancholy streak was considered a sign of refinement," says Simon Kyaga, a senior consultant in psychiatry and a researcher at the Karolinska Institutet medical university in Stockholm. "Melancholy was established as a feature for the upper class, that one could afford being sensitive and emotional."

The aim is to be classical and contemporary, says marketing director Loman. "The Swedish back story, plus the minimalist, practical styling, with a contemporary twist, give it an edge," says analyst Maureen Hinton at research firm Conlumino in London.

Stockholm thin stripe, $395

Arvid coat, $1,342

Stutterheim isn't alone in playing on its Swedish roots. **Ikea** has been a pioneer with a logo that features the colors of the Swedish flag, as well as jars of lingonberry jam on its shelves and product names like Söderhamn (a couch) and Poäng (an armchair). **Volvo Cars** produced a new TV ad early this year celebrating Swedish misery. The carmaker, owned by China's Zhejiang Geely Holding, has teamed up with Stutterheim to make and sell a limited-edition raincoat and a car cover.

"It's important to create stories that people actually believe in," says Eva Ossiansson, a brand expert and researcher at the University of Gothenburg. How well a message sells, she says, depends on how natural the connection is to the brand.

Stutterheim has a store called Regn (Swedish for rain) in Stockholm, and the founder has plans to open another outside Sweden in May, though he won't say where. The U.K. clothing label Whistles just released a unisex raincoat line made in collaboration with the Swedish company; the coats sell for about $360 each.

The Whistles deal, says analyst Hinton, gives Stutterheim access to a more affluent, style-driven market. "I can see it being bought by a wide range of customers because it is a stylish way of dealing with the U.K. weather," she says. "I don't think the melancholy theme will put customers off—as long as it is not overplayed." —*Katarina Gustafsson*

The bottom line Sales of Stutterheim's trendy raincoats could reach $4.8 million in 2015, up from $180,000 in 2011.

Airlines

American Wants to Be Something Special Again

▶ Lucrative Asian routes and fixing labor problems are top priorities

▶ Asia is "the one area that we've been outperforming the industry"

One year after **American Airlines** merged with US Airways, Chief Executive Officer Doug Parker has settled on his most important destination: Asia. American is playing catch-up with **United Continental** and **Delta Air Lines** in the growing market for air travel in the region. Its share of U.S.-Asia flights has grown to 12 percent, from 10.6 percent in 2013, but still lags behind the 45 percent held by United and 36 percent for Delta. In a Jan. 27 earnings call, American President Scott Kirby called Asia "the one area that we've been outperforming the industry by a pretty wide margin for the last year."

American, which emerged from bankruptcy in December 2013, is making its biggest play in trying to serve Tokyo's Haneda airport. Its executives have asked federal regulators to strip Delta's rights to fly to Haneda from Seattle and let American operate a Los Angeles-Haneda route instead. "It's important for us to get in there," Kirby said on the January earnings call. "It's also important for customers, and that's a valuable asset, a slot at the premier airport in Japan." ▶

Quoted

"Past forms of preaching are no longer suitable for today."

Wang Sixin, professor at Beijing's Communication University of China, on plans for a version of *Saturday Night Live* in communist China

◀ American's unusually aggressive pitch to the U.S. Department of Transportation included a chart labeled "Seatless in Seattle" that claimed Delta wasn't flying often enough from the city to justify having two of only four allotted round-trip flights between the U.S. and Haneda. It also filed a calendar with a red X marked on each day Delta didn't fly the route. Over six months, Delta's Seattle flight would operate on only 17 days, American said. American pledged to fly between Haneda and Los Angeles daily.

Delta has asked regulators to deny American's request, saying it's in compliance with rules governing the Haneda route. Delta will offer daily service later this year when demand typically rises, the airline said in its response to the DOT. An initial order from the Transportation Department is expected in the next few weeks.

By the time American parent AMR filed for bankruptcy in November 2011, the airline had fallen from its perch atop the U.S. industry in the 1980s and '90s. American continues to face stiff competition from discounters and lags the industry in per-seat revenue. Parker, who declined to be interviewed for this story, was CEO of US Airways before the merger. He took over struggling America West Holdings 10 days before the Sept. 11 attacks.

Last year, American added routes from Dallas-Fort Worth, its biggest hub, to Hong Kong and Shanghai. A Dallas-Beijing flight is coming later this year. Parker also signed a marketing agreement that allows **Korean Air**, a partner with Delta in a global airline alliance, to easily book travelers on American flights from Seoul's Incheon International Airport to Dallas-Fort Worth.

Parker and Kirby are also trying to rebuild relationships with labor. In December they restored $81 million in compensation from a tentative contract flight attendants rejected in November. The airline in January gave pilots more time to vote on their contract and still receive a month of retroactive pay.

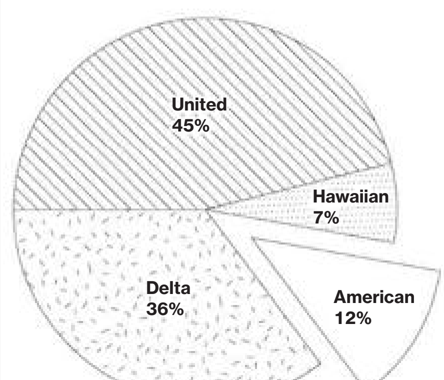
That's a departure from the past. The airline sought billions in concessions in 2003 and again before the bankruptcy. Still, the unions aren't satisfied. Parker refused to implement profit sharing because he believes it's better to give workers higher base pay as the airline's profits improve than for them to bank on variable compensation that could fall.

"The line of communication is there," says Dennis Tajer, spokesman for the Allied Pilots Association at American. "It's an all-hands-on-deck event this year and having labor fully on board is going to be critical to the process."

Parker has also joined with the CEOs of Delta and United to criticize what they say is an unfair advantage held by three Persian Gulf airlines that have grown

Miles to Go

U.S. carriers' 2014 market share in the Asia-Pacific region, based on miles flown by paying passengers



FIGURES BASED ON TRAVEL FROM JAN. TO NOV.
DATA: BUREAU OF TRANSPORTATION STATISTICS

substantially in the U.S. The executives said the airlines—**Emirates**, **Qatar Airways**, and **Etihad Airways**—get about $40 billion in subsidies from the United Arab Emirates and Qatar.

American posted record profits in 2014, thanks in part to declining fuel costs. But it's struggling in Latin America, where it offers more routes than other U.S. airlines, because of the soft economy, and is facing increased competition domestically from discount carriers, including **Spirit Airlines** and **Frontier Airlines**. **Southwest Airlines** is offering new nonstop flights at Love Field in Dallas at introductory one-way fares as low as $69. American has cut some fares to compete.

"You had a bunch of people on the American side that had just kind of been beaten down," says Bob Mann, president of aviation consultant R.W. Mann and a former American executive. "That got remedied. Now they've flipped to the offensive." —*Mary Schlangenstein*

The bottom line Capturing an increasing share of lucrative Asian business routes is key to American's long-term success.

E-Commerce

Skiing Gets Online, and Lift Tickets Get Cheaper

▶ Liftopia is bringing dynamic pricing to the ski business

▶ "The future is going to come with efficiency in bringing people here"

Planning a spring ski trip? It would have been cheaper if you'd bought your lift tickets months ago. That's the idea behind **Liftopia**, the San Francisco company that's making the $11 billion ski-and-snowboard business more like the airline and hotel industries by using dynamic or variable pricing. Before Liftopia, a day on the hill cost the same regardless of when it was purchased. Liftopia works with resorts to crunch data on historical and real-time supply and demand to vary prices. Customers who commit early are rewarded with steep discounts; resorts can hedge against cancellations if the weather turns.

Co-founded by Evan Reece, a skier and former manager at travel website Hotwire.com, Liftopia dominates the online market for ski tickets. It's raised $7.9 million from investors, including Marc Benioff, chief executive officer of cloud-computing company Salesforce.com. Reece says the company will sell 5 percent of paid daily lift tickets this season. It works with more than 250 resorts in the U.S. and Canada, up from seven resorts soon after it started operations in 2005. Almost 100 also use Liftopia's software to sell tickets on their own sites, a more than tenfold increase since that product's launch in 2011. Other resorts have implemented dynamic pricing on their own, including **Alta Ski Area** in Utah and **Mont-Tremblant** in Quebec.

32%

Average discount this season for Liftopia users buying ski tickets 15-plus days in advance

Kelly Saux, a marketing director from Concord, Mass., used Liftopia just before Christmas to ski with his wife and two children at **Ragged Mountain** in New Hampshire and scored a 48 percent discount off the normal $79 price. "Skiing is definitely an expensive sport," he says, and Liftopia is a way to make it less so.

Deregulation of the airline industry led carriers to develop dynamic pricing software in the 1980s to help balance supply and demand for tickets. The rise of e-commerce and more sophisticated data collection have moved dynamic pricing into other areas, including sporting events ticketing.

Liftopia's price flexibility appeals to skiers who might be deterred by the rising cost of lift tickets. The average adult weekend rate rose 6 percent last season, to $92 a day, according to the National Ski Areas Association. At Vail Mountain Resort in Colorado, a same-day lift ticket this winter costs $159. "The past 30 years has been a chunk of time when the industry grew based off improvements in physical infrastructure," such as snowmaking and chairlifts, Reece says. "The future is going to come with efficiency in bringing people here."

Unlike **GetSkiTickets.com,** a smaller competitor, and airlines, Liftopia raises prices only as the ticket's date approaches. A day at **Waterville Valley** in New Hampshire, for ▶

SNL: DANA EDELSON/NBC/NBCU PHOTO BANK/GETTY IMAGES; ILLUSTRATION BY 731

example, recently sold for about 42 percent less than the $75 advertised rate 15 days out, and 24 percent less one day out. Liftopia lets customers change dates for an added fee, a policy introduced at the beginning of the 2014-15 season.

At **Mammoth Mountain Ski Area** in California, Liftopia's dynamic pricing has contributed to a 15 percent increase in advance lift ticket sales this winter compared with the 2013-14 season, according to Chief Marketing Officer Erik Forsell. It's also boosted revenue by presenting the company with opportunities to contact customers with offers for other services, including equipment rentals and lodging, he says. **Homewood Mountain Resort**, on the California side of Lake Tahoe, adopted Liftopia's pricing system this season. General Manager Kevin Mitchell says it's helped him better allocate workers and spread out skier traffic to reduce crowding. —*Esmé E. Deprez*

The bottom line Liftopia dominates online lift ticket sales, working with more than 250 ski areas in the U.S. and Canada.

Hollywood

Disney's Princesses Get a Little Live Action

▶ *Cinderella* is next in a line of old favorites the studio is reinventing

▶ It used to re-release classics, but "reimagining them is what's hot"

For **Walt Disney Studios** Chairman Alan Horn, *Snow White and the Huntsman* was like a bite out of a poison apple. It was the kind of story Walt Disney built his company around, but the 2012 film was released by rival **Universal Studios**, and the characters were played by live actors. "Why aren't we doing that?" Horn recalls asking.

March 13 will bring the release of *Cinderella*, a live-action version of the 1950 Disney animated classic. It will be followed next year by a similar Disney redo of *The Jungle Book*. *Beauty and the Beast* and *Dumbo* remakes are in the works. (The studio hasn't announced who will play Dumbo.)

Hollywood makes lots of films for kids, but the Disney reboots may be one of the few safe bets. They revive classic characters for a new generation of kids, and their already smitten parents may be especially willing to shell out for related merchandise. (Think glass slippers.) With DVD sales declining and digital downloads on the rise, studios can't just reissue old films in new packaging, says Robert Levin, a former Disney marketing executive and president of market research company Screen Engine. "There used to be a rerelease of a classic film every seven years," he says. "Now reimagining them is what's hot."

Walt Disney Chairman and Chief Executive Officer Robert Iger says he likes the remake strategy, but the movies have to reflect the heritage of the Disney company, and they have to be innovative. *Cinderella* fits that bill. The film, directed by Kenneth Branagh, retells the familiar story of blended families gone wrong with a combination of Victorian elegance and cutting-edge special effects. Computer-generated lizards wiggle and transform into real-life footmen. Digitized mice giggle and gallantly leap to Cinderella's aid. The real-life costumes, designed by three-time Oscar winner Sandy Powell, include Cinderella's iconic blue dress, overflowing with silk and Swarovski crystals.

> "The lack of strategic diversity among the major studios could well lead to an increasing number of box office bombs"

Heavy on British actors, the cast features two recruits from the British television hit *Downton Abbey*, including Lily "Lady Rose" James in the title role. Richard Madden, the actor known for

$68m

Amount *Cinderella* is projected to make in its opening weekend

CLOCKWISE FROM LEFT: COURTESY JONATHAN OLLEY/DISNEY; COURTESY REEBOK; CHELSEA LAUREN/WIREIMAGE/GETTY IMAGES

playing Robb Stark on **HBO**'s *Game of Thrones*, plays Cinderella's prince. Disney's Horn says his model is *Life of Pi*, the 20th Century Fox film that won an Oscar for visual effects in 2013. Most of the tiger scenes in the movie were computer generated, an example of what Disney could bring to *The Jungle Book*.

Studios have to make such spectaculars to compete with high-quality TV shows created by networks such as HBO, says Vincent Bruzzese, a film consultant. "You have to make an experience, something that deserves going to the theater for," he says. Doug Creutz, an analyst at Cowen Group, says too many moviemakers are churning out the same kinds of pictures, leaning on superheroes and familiar characters that come with built-in audiences, do well abroad, and have product potential. "The lack of strategic diversity among the major studios could well lead to an increasing number of box office bombs, as well as accelerating declines in domestic box office," Creutz wrote in a March 2 report. Disney had its own such bomb two years ago with a live-action version of *The Lone Ranger*.

Because many fairy tales and old favorites are in the public domain, anyone can play the game. **Time Warner**'s Warner Bros. is planning *Jungle Book: Origins*, its version of Rudyard Kipling's work, for an October 2017 release, more than a year after Disney's own *Jungle* hits theaters. *The Huntsman*, a prequel to *Snow White and the Huntsman*, will be released by Universal in April 2016.

Disney's film unit generated a record profit of $1.55 billion last year, largely because of the animated hit *Frozen*. It's running a new animated short, *Frozen Fever*, before *Cinderella* to draw blue-dress lovers everywhere. *Cinderella*, with a $95 million budget, is forecast to produce opening weekend ticket sales of $68 million in the U.S. and Canada, says Phil Contrino, chief analyst for the research site BoxOffice.com. He says it could even be bigger than *Maleficent*, Disney's edgy retelling of *Sleeping Beauty* that took in $758 million worldwide last year. "Disney is on a roll with princess movies," he says. —*Christopher Palmeri and Anousha Sakoui*

The bottom line Disney is hoping that *Frozen* sprinkles some box office fairy dust on *Cinderella*. Cue the blue dress.

Edited by Dimitra Kessenides
Bloomberg.com

Briefs

By Kyle Stock

Richer Rides

The companies behind the world's most luxurious cars, emboldened by a sales streak, unveiled their most diverse lineups to date at the Geneva International Motor Show. *Bentley*, a Volkswagen brand known for stately sedans, showed off a small sports car. *Aston Martin*, famous for its speed machines, said it would make an SUV. *Koenigsegg*, a Swedish company, introduced a sports car that will cost $1.9 million. In the past five years sales of high-end vehicles have climbed 154 percent, compared with a 36 percent gain in the auto market at large. *Target* said it would lay off thousands of employees at its Minneapolis headquarters in an effort to trim $2 billion in expenses over the next two years. The company, which is trying to recover from a slump, has about 13,000 workers at the Minnesota campus. *McDonald's* said it would stop selling chicken raised with human antibiotics at its U.S. restaurants. The company is working with *Tyson Foods* and other suppliers and plans to phase out the meat over two years. Antibiotics in farm operations are said to cause superbugs. Comcast's *NBCUniversal* said it would launch a subscription-based Web-video service later this year in a bid to reach young viewers without TVs or cable service. The platform will be heavy on comedy and mix the brand's current hits, like *Saturday Night Live*, with new original shows. *Abercrombie & Fitch* posted a 14 percent drop in sales for the most recent quarter, the same period in which it dismissed CEO Mike Jeffries. The company said investors should expect more declines in the coming months, as it struggles to pin down teen fashion trends.

Reebok unveiled a new model of inflatable sneaker, resurrecting its 26-year-old Pump patents as the foundation of a turnaround plan. Adidas has owned the company since 2006.

The amount **Best Buy** said it would spend buying back shares in the next three years. The company posted gains in both online and in-store sales over the holidays.

$1b

CEO Wisdom

"Most people prefer a better experience at a better price and that's what we do. We can build a defensible network doing that."

Robin Hayes, CEO, JetBlue Airways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Politics/ Policy

Big Corn Butters Up The 2016 Hopefuls

▶ A GOP donor welcomes would-be candidates to Iowa with a pitch for ethanol

▶ "There's an expectation that there will be direct answers given"

PHOTO ILLUSTRATION BY 731; PHOTOS: BLOOMBERG (5); GETTY IMAGES (1)

It's been a bad few weeks for corn. On Feb. 26, Senator Pat Toomey, a Republican from Pennsylvania known for fiscal conservatism, and California Democratic Senator Dianne Feinstein introduced legislation to eliminate federal requirements that oil refiners buy corn-based ethanol and blend it into gasoline. "This is the government using corporate welfare to shower money on a favored industry," Toomey said in a statement. In the House, Virginia Republican Representative Bob Goodlatte introduced legislation in February to cap the amount of ethanol allowed in gasoline. That bill has 43 co-sponsors, including Republicans from Texas and other oil states.

Support for ethanol, a political darling of the past decade, has withered as domestic production of oil and gas has boomed. Critics cite not only government subsidies for the industry but also studies showing that converting corn into ethanol is environmentally harmful. "The worm has turned," says C. Ford Runge, an agricultural economist at the University of Minnesota at St. Paul. "There's a certain amount of embarrassment among politicians that they went down this road so far."

To Bruce Rastetter, an Iowa pork and ethanol mogul, the solution is obvious: Focus on the White House. Rastetter founded **Heartland Pork**, one of the country's biggest pork processors, in 1994, before moving into ethanol in 2003. He was a donor to Mitt Romney's 2012 super PAC, Restore Our Future; now the newest crop of presidential hopefuls is courting him.

That's helped Rastetter sign up about a dozen prospective 2016 candidates to an agriculture summit planned for March 7 at the Iowa State Fairgrounds in Des Moines. Expected attendees include former Florida Governor Jeb Bush, Wisconsin Governor Scott Walker, New Jersey Governor Chris Christie, and former Texas Governor Rick Perry. Texas Senator Ted Cruz, who has sponsored legislation rolling back ethanol mandates in the past, also RSVP'd.

Rastetter says he hopes the public event will serve as a counterpoint to "the malaise that's been going on in Congress for a while now." Participants will be allowed to give prepared speeches, but they'll also spend 20 minutes apiece being grilled by Rastetter onstage. "They know me, and they know they will get direct questions and that there's an expectation that there will be direct answers given," Rastetter says. "There's an expectation that these potential candidates will take positions on a variety of agricultural issues, including ethanol." The list of topics includes food safety, immigration, conservation, and trade agreements.

The summit dovetails with efforts by Iowa Governor Terry Branstad, a Republican who is close to Rastetter, to start a grassroots effort to make ethanol a central issue in the Iowa caucuses next January, traditionally the first vote of the presidential primary season. Earlier this year, Branstad announced the formation of a new group, America's Renewable Future, which intends to mobilize a pro-ethanol army of 25,000 people ▶

from each party to participate in the caucuses. The group is backed by Growth Energy, the most active ethanol lobby, and headed by Branstad's son Eric, who was Iowa field director for the 2004 Bush-Cheney campaign. He says he plans to open an office in each of Iowa's 99 counties. "We can get our message into the coffee shops where the candidates are," Eric says. "Then we can use Iowa's unique status to teach the rest of the country how important ethanol is."

The battle outside of Iowa may be uphill, says Dee Davis, president of the Center for Rural Strategies in Whitesburg, Ky. Iowa farmers "need to increase the drumbeat for their policies at a time when fewer people care about them," she says. Urban voters, who still feel they're struggling despite the improving economy, have less appetite for supporting subsidies to farmers. Democrats, including Feinstein, have repeatedly argued that ethanol, which absorbs about 40 percent of U.S. corn production, raises food prices for Americans.

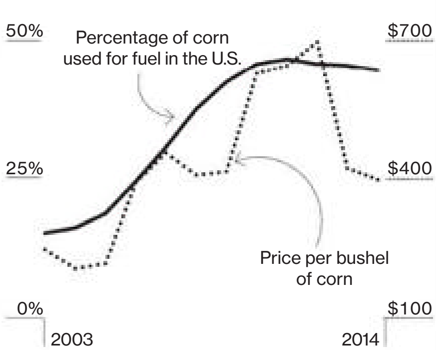
In 2011, Congress let expire a tax credit worth $6 billion annually to ethanol producers, along with a tariff on foreign ethanol imports. The Obama administration has since moved to lower ethanol quotas for oil refiners, who must use plant-derived fuels under the 2007 Renewable Fuel Standard. In November the Environmental Protection Agency, which never set quotas for 2014, said it would delay issuing new guidance on how much ethanol oil refiners must use until sometime this spring.

The effect has been devastating in Iowa farm country, which is "in semi-crisis," says Steffen Schmidt, a political science professor at Iowa State University in Ames. Without rising ethanol demand, bumper harvests are creating a corn glut that's sent prices from more than $8 a bushel in 2012 to less than $4 now. Less money for farmers means less spending: Tractor manufacturer **Deere** laid off more than 800 Iowa workers in January, in its second round of cutbacks since August; and seed maker **Monsanto** and chemical giant **Syngenta** say they expect sales to slow this year. "Ethanol is a serious issue in farm states," Schmidt says.

Eric Branstad insists ethanol is the victim of "lies told by Big Oil." It remains crucial to prosperity in the rural Midwest, which weathered the financial crisis better than the rest of the country in part because ethanol buoyed farmers. Branstad says his job is to remind Iowa caucusgoers that it's their responsibility to reinforce the message donors such as Rastetter send candidates by actually showing up at the polls. Fewer than 150,000 people took part in the 2012 caucuses, a drop-off from 2008. "We are talking about potential presidents here," Branstad says. "They will not be able to ignore rural America." —*Alan Bjerga and Julie Bykowicz*

The bottom line Congress is backing off ethanol, but Iowa Republicans are pushing presidential candidates to pledge their support.

Corn Runs Out of Gas



DATA: USDA, BLOOMBERG

Lawsuits

Replacing Class-Action Postcards With 'Likes'

▶ Ex-interns suing Gawker want to use social media to find plaintiffs

▶ "The courts have been reluctant to give up on notice by mail"

Last August a federal judge granted two former **Gawker Media** interns permission to wage their fight for back pay from the company on behalf of former interns. It was a big win for the plaintiffs, but it raised a question: how to find people qualified to join the suit. Traditionally, lawyers track down parties for class actions by mail, but young people working for no pay in New York are unlikely to have fixed addresses. In November, Judge Alison Nathan gave the plaintiffs, Aulistar Mark and Andrew Hudson, permission to use social media, too. "This is a younger generation. They're more apt to use hashtags," says Brett Gallaway, a partner with McLaughlin & Stern, who specializes in class actions. "I think it's almost ingenious."

Nathan's ruling has triggered a fierce debate over how far, exactly, Mark and Hudson's attorneys can trawl online. In a Feb. 17 filing, Gawker's attorneys raised myriad objections to the specifics of the plaintiffs' proposed social media plan. Friending ex-interns on **Facebook** would be "misleading," they said. Posting notices in **Reddit** threads about Gawker's coverage of GamerGate would tie the suit to "unrelated controversies." "Outreach via social media actually makes good sense, so long as plaintiffs' lawyers aren't spamming people or targeting social sites that are unlikely to reach the relevant folks," says Gawker President and General Counsel Heather Dietrick. Gawker has denied wrongdoing in its intern pay policies.

Federal rules of civil procedure require that members of a legal class be provided "the best notice that is practicable under the circumstances," including individual outreach where possible. Plaintiffs' attorneys aren't supposed to be intrusive or to actively solicit parties, and they're not supposed to imply that the court thinks they have a good case. Most judges see regular mail as the gold standard, thanks to a 1950 Supreme Court ruling that found no need for lawyers to turn to other means of finding plaintiffs "where the names and post office addresses of those affected by a proceeding are at hand." Some judges won't even let lawyers call potential class members on the phone. "The courts have been reluctant to give up on notice by mail," says Charles Silver, a law professor at the University of Texas at Austin. "1950—it might as well be hundreds of years ago, as far as the Internet is concerned. It just did not anticipate this means of communication."

In the past decade, class-action lawyers have clashed over the merits of e-mail relative to old-fashioned postal mail. "Social media is sort of the next chapter of this," says Robert Klonoff, a professor at Lewis & Clark Law School in Portland, Ore. In February an Oklahoma judge banned a plaintiffs' attorney from using "public, private, or social media" to encourage people to opt out of a proposed energy royalty settlement.

Social media could be especially useful for plaintiffs' attorneys pursuing opt-in suits, which are viable only if lawyers can track down enough members. Putting up notices on

ILLUSTRATIONS BY 731

sites such as Reddit could "fuel the possibility of those who already have a grudge against a particular company–or even impostors, who are going to try to jump on the bandwagon," says Jason Stiehl, who co-chairs the commercial class-action defense practice at Seyfarth Shaw. "I think we're going to see a lot of divergent opinions on this." —*Josh Eidelson*

The bottom line Courts have resisted letting plaintiffs use social media in class-action suits, but that may be starting to change.

Lobbying

Making Washington Fall In Love With Pizza Again

▶ **The industry is pushing back against antiobesity regulations**

▶ **If people "see 10,000 calories, they may be reluctant to buy it"**

Every day, about 41 million Americans eat a slice of pizza. "It is, without doubt, the food of the Gods," says a 2014 video produced by the American Chemical Society that explains the chemistry behind pizza's appeal. Until recently, the U.S. government seemed to agree. For years, a marketing agency overseen by the Department of Agriculture encouraged chain pizzerias to load up their pies with cheese to increase Americans' dairy consumption. That led to **Pizza Hut**'s 2002 Summer of Cheese campaign and the 2009 launch of **Domino's** American Legends pizza, which has 40 percent more cheese.

Now the pizza industry has become a target in the national fight against obesity. Last fall the U.S. Food and Drug Administration finalized rules requiring pizza parlors to post calorie information the way burger and fried-chicken chains do, something pizzerias had resisted. Some fast-food giants have gone out of their way to publicly embrace the push for healthier options. **McDonald's** took soda out of Happy Meals and added calorie counts to its menus long before the government required it. **Wendy's** also took soda off its children's menu; the **Olive Garden** and **Red Lobster** chains reduced sodium and calorie counts in kids' meals and made vegetables and milk the default side and drink options. ▶

$2,096,644,000,000

Total profits stashed offshore, a $154.5 billion increase since last year

Taxes Microsoft Could Pay for the DOJ

Just as American citizens are supposed to pay U.S. taxes on their worldwide income, American companies owe Uncle Sam a cut of profits they earn overseas. Unlike individuals, corporations pay only when they bring the money home, giving them an incentive to keep the cash abroad. Here's how much they'd owe if they brought it all home. —*Richard Rubin, with Cameron Leuthy*

Foreign profits		Lost U.S. taxes*	Budget it would cover
Microsoft $92.9b	Books profit in Ireland, Puerto Rico, and Singapore	$29.6b	The **Department of Justice**, plus a quarter of the **Department of Commerce**
Apple $69.7b	In 2010, only $12.3 billion was held abroad	$23.3b	All but $500 million of the **Department of Agriculture**'s discretionary budget
Oracle $39.3b		$12.2b	The **Department of the Treasury**
Citigroup $43.8b		$11.6b	The **National Nuclear Security Administration**
Amgen $29.3b	Some is held in Puerto Rico	$10.5b	The **Environmental Protection Agency** and a fifth of the **Department of the Interior**
Qualcomm $25.7b		$9.1b	Overhead for the **Social Security Administration**
JPMorgan Chase $31.1b	It reports some in the U.K.	$7b	The **Transportation Security Administration**
Gilead Sciences $15.6b	Books profit in Ireland	$5.5b	The **Army Corps of Engineers**
Goldman Sachs $24.9b		$4.7b	The **Pentagon**'s funds for training and equipping security forces in Afghanistan and rebels in Syria
Bank of America $17.2b		$4.5b	All of **NASA**'s space operations, plus the James Webb Space Telescope





SOURCES: SECURITIES FILINGS COMPILED BY BLOOMBERG, U.S. OFFICE OF MANAGEMENT AND BUDGET;
*COMPANIES OWE THE 35 PERCENT U.S. CORPORATE TAX RATE WHEN THEY REPATRIATE PROFITS BUT GET CREDIT FOR TAXES ALREADY PAID ABROAD

How They Sling Their Dough

U.S. pizza chains contributed $1.5 million to candidates and outside spending groups in the 2012 and 2014 elections.

	Little Caesars	Domino's	Schwan	Papa John's	Other pizza makers	Pizza Hut
	$2,775	$45,726	$107,100	$116,807	$549,214	$685,369
Democrats	27%	20.7%	21.5%	4.6%	20.4%	1.0%
Republicans	73%	79.3%	78.3%	86.8%	76.4%	98.9%
Outside groups			0.2%	8.6%	3.2%	0.1%

DATA: CENTER FOR RESPONSIVE POLITICS

◀ Pizza makers have taken the opposite tack. In 2010, Domino's led the formation of the American Pizza Community, an advocacy group that represents the domestic pizza industry, which it estimates is valued at $37 billion. Its members include chains such as **Papa John's** and **Little Caesars** as well as specialty chains such as **California Pizza Kitchen** and New York's **Two Boots Pizza**. Their goal is to convince legislators that pizza deserves special treatment unlike other fast foods. "You can't make pizza in a minute," says APC Chair Lynn Liddle, who is executive vice president of communications, investor relations, and legislative affairs at Domino's. "You can't drive through. We don't have fryers."

In 2010, Congress passed menu-labeling requirements as part of the Affordable Care Act. A year later, the FDA released draft regulations hashed out in cooperation with the National Restaurant Association. The proposed regulations would have required pizzerias to post calories by the pie rather than by the slice. Pizza makers were aghast. "When somebody looks at nutritionals on a large pizza and they see 10,000 calories, they may be reluctant to buy it," says Marla Topliff, president of **Rosati's Pizza** in suburban Chicago.

Chain pizzerias insisted it would be impossible to post accurate calorie counts given the range of toppings available and objected to putting up calorie boards in stores when most customers order for delivery. Domino's hired a lobbyist in Washington, and the APC began organizing trips to Capitol Hill for its members. The final rules allowed pizzeria owners to post calorie information by the slice, and the FDA says only standard menu items need to be labeled, not every possible combination of toppings. "The FDA included flexibility in the rule in response to pizza industry comments," says FDA spokeswoman Jennifer Corbett Dooren.

Still, Liddle wasn't happy. The requirements continued to present too great a burden for smaller chains. "The APC will now enlist the help of allies to right this wrong," she said in a statement when the rules were finalized in November. With Republicans now in charge of both houses of Congress, Liddle says she's hoping to win changes to the FDA regulations. Over the past two election cycles, Republican candidates for federal office received about $1.3 million from the pizza industry, according to an analysis by the Center for Responsive Politics of major pizza companies and others that listed "pizza" in their name. Democrats received $157,000. The biggest beneficiary was Mitt Romney, despite published reports that he pulls the cheese off his pizza. "We are in the beginning stages," says Liddle, whose group has also opposed minimum-wage increases. "We are trying to build our way up and get these messages out."

Liddle says the APC may link up with lobbyists representing frozen pizza, which Domino's described as "the root of all evil" on its delivery boxes in 2011. "In trying to figure out who we are when we grow up, one of the questions is: Do we include frozen pizza in the group?" she says. Frozen-pizza makers have already fought a protracted battle with the USDA. In 2011 the department proposed changing how much tomato paste would count as a serving of vegetables in subsidized school lunches. Frozen-pizza makers saw it as a way to push pizza out of school cafeterias. "None of our members wanted the federal government to say, 'Pizza is bad for you,'" says Kraig Naasz, chief executive officer of the American Frozen Food Institute, which lobbies for frozen pizza.

The USDA delayed rules requiring a reduction in sodium and increases in the amount of whole grain used in pizza dough. The government also agreed to drop changes to its tomato paste standards, allowing schools to keep counting pizza as a vegetable. "Pizza is, like, the greatest food in America," says Joe Clayton, executive director of the National Frozen Pizza Institute, which helped press for those concessions. "It is part of America, and it has been for a long time." —*Andrew Martin*

The bottom line The $37 billion pizza industry wants Congress to roll back regulations designed to get Americans to eat fewer slices.

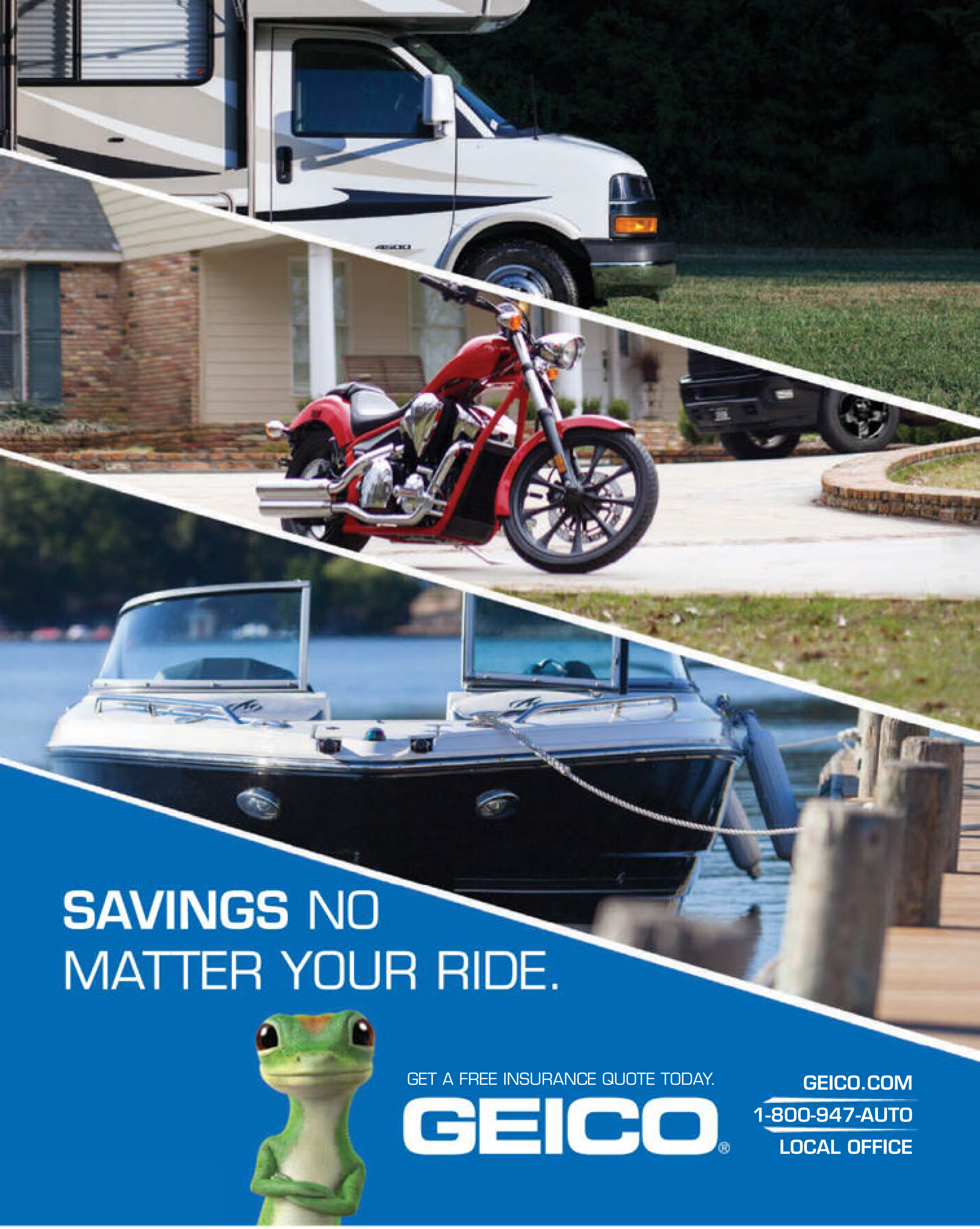
Edited by Allison Hoffman
Bloomberg.com

Quoted

"We're going to have the death spiral that this system was created to avoid."

Justice Sonia Sotomayor on the consequences of a Supreme Court ruling invalidating federal subsidies for Obamacare, during oral arguments in *King v. Burwell* on March 4, 2015

JEFF CHIU/AP PHOTO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Charlie Rose talks to...

James Clapper

The director of national intelligence on Islamic State, life after the Snowden revelations, and keeping Iran nuke-free

BRENDAN SMIALOWSKI/AFP/GETTY IMAGES

Define for us exactly what the DNI does. Well, the position of the DNI actually grew out of a recommendation made by the 9/11 Commission. Essentially, the three duties are to be the senior adviser on intelligence and counter-intelligence matters to the president; to manage what's called the National Intelligence Program, which encompasses all the resources, the money—which I defend and navigate to Congress each year—for the entirety of the national intelligence community; and of course, to manage the enterprise. My main objective has been, in the four-and-a-half years I've had the job, to integrate the community as much as possible.

Have you come to any new positions on transparency after the Snowden affair? Not exactly. I do think we need to speak out more than we have, to counter the narrative that has been promulgated about the intelligence community. A major takeaway for me, after the Snowden leaks, is we in the intelligence community do need to be more transparent. It's important for the public and their elected representatives to understand what we do and why we do it, which is, bottom line, to keep the country safe.

What has changed since Snowden? Transparency is a two-edged sword. It is good to the extent that we can explain what we do and why we do it, but our adversaries go to school on that very same transparency. And that's precisely what's happened. Islamic State is very astute at learning from these revelations and applying what they've learned.

There's no silver bullet here. There is a balance between protection of national security and protection of civil liberties and privacy. If there were some way where we could just find the needles without having to bother, not just one haystack, but hundreds and hundreds of haystacks in order to find those nefarious needles, that would be great. Right now, we can't do that.

Why didn't we know more about the development of Islamic State? We reported robustly on its fighting prowess and capabilities, and we also reported robustly on all the deficiencies and shortfalls of the Iraqi security forces. What we didn't foresee—and certainly, I didn't foresee—is that literally overnight, four-and-a-half divisions or so of Iraqi security forces would literally melt away. I will say, going back to my war, which is southeast Asia, that we've never been real good at predicting the will to fight.

I don't know whether the United States can instill in the Iraqis, or any other foreign force, the will to fight. The will to fight ultimately stems from the loyalty to a government, to a cause of their own, and I don't know that we can impose that.

"I don't know whether the United States can instill in the Iraqis, or any other foreign force, the will to fight"

What should Americans know about negotiations with Iran? My focus and the focus of the intelligence community, if negotiations are successful, is our ability to monitor and verify. And that will depend very heavily on, I think, intrusive and comprehensive surveillance and inspections by the International Atomic Energy Agency. That will be hugely important to us and our ability to verify.

Do the U.S. and Israel differ on the threat of Iran getting a nuclear bomb? I've had a long association with Israeli intelligence, for 30 or 35 years. They are very competent, very professional. And I think at the intelligence level, where we have a very close relationship, we're pretty much on the same page with respect to our inside knowledge of Iran's capabilities and what they might be in the future. What policymakers say and do about it is a different proposition, and I steadfastly try to stay out of the policy arena.

Does the U.S. need to put boots on the ground to defeat Islamic State? Probably somebody's boots on the ground, but not necessarily ours. King Abdullah of Jordan was very eloquent about the need for this to be their fight. Every time we inject ourselves someplace, that injection, that presence, in and of itself, generates, you know, maybe positive impacts, but also negative impacts.

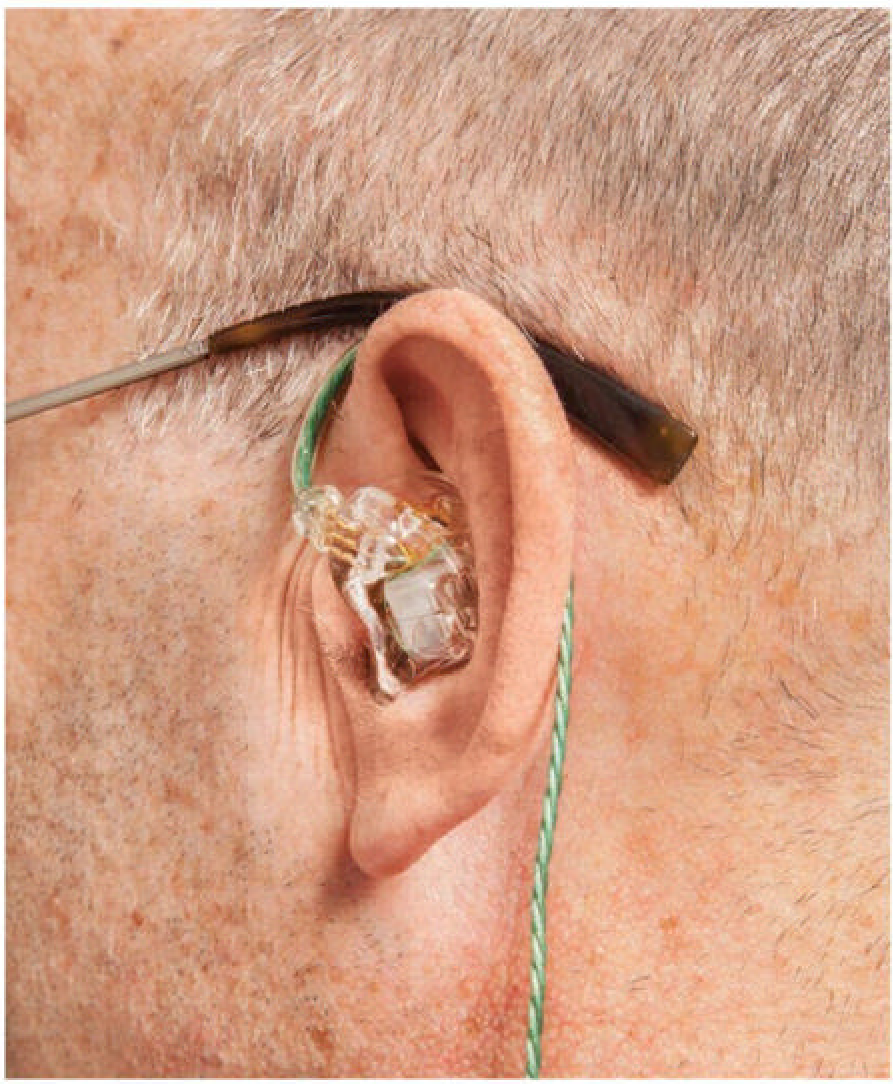
Watch Charlie Rose on Bloomberg TV Weeknights at 7 p.m. and 10 p.m. ET

March 9 — March 15, 2015

Now Hear This

▶ **Advances in circuitry and Bluetooth have made hearing-aid alternatives cheaper and more powerful**

▶ **But "a lot of people will continue to pay for traditional hearing aids"**



PHOTOGRAPH BY CAROLL TAVERAS FOR BLOOMBERG BUSINESSWEEK

One night in June 2010, New York composer Richard Einhorn went to bed in a motel feeling stuffy and woke up almost completely deaf. At the time, Einhorn, who wrote the oratorio *Voices of Light*, had limited ways to deal with his nightmare condition, known as sudden sensorineural hearing loss. He visited an audiologist and bought a hearing aid for $3,000. (His insurance plan, like most, didn't cover it.) Unhappy with the expense and the limits of the earpiece's technology, which struggled to adapt to different noise levels, Einhorn began searching for alternative gadgets that could restore more of his hearing for less money.

Today, he has a backpack full of them. To supplement his old-school hearing aid, he favors a $350 iPhone-linked earpiece made by **Sound World Solutions**, a hearing-hardware maker in Park Ridge, Ill., for whom he's begun to consult. With the Sound World device on, he can amplify phone calls and streaming music as well as his surroundings. A third, $500 earpiece was custom-made by **Ultimate Ears** in Irvine, Calif., to help him detect a wider range of musical tones while composing. For restaurants and theaters, he has a $45 directional microphone that pairs with a $5 app to isolate desired voices. And for especially cacophonous places, he has spare $700 microphones, made by **Etymotic Research** in Elk Grove Village, Ill., that he can strap to companions.

Einhorn credits the audio patchwork with saving his career and his life. "It's incredible," he says over lunch in a busy restaurant, as he toggles the proper setting on his phone.

The Bluetooth-connected earpieces aren't classified as hearing aids by the U.S. Food and Drug Administration. They're called personal sound amplification products, or PSAPs. Basic versions of such devices have existed for more than a decade in lonely RadioShack aisles and a handful of other places. But in the past 18 months, advances in circuitry and low-energy Bluetooth transmission have helped developers radically improve the designs to make high-quality, long-lasting alternatives to hearing aids while keeping prices at a fraction of the industry standard.

Whatever regulators or insurers call them, PSAP manufacturers are angling to expand the $6 billion global market for hearing technology. Largely due to the cost, 75 percent of the 34 million Americans with hearing loss don't use aids, says David Kirkwood, the editor of industry ▶

This iOS-compatible directional microphone helps users pick up words from a particular part of a room

A mix of in-ear devices lets Einhorn tweak his hearing for different situations

Companion mics, slung around friends' necks, can focus audio from individual people

◀ blog Hearing Health & Technology Matters. "A lot of people will continue to pay for traditional hearing aids," he says. "But there are now inexpensive, easy-to-get alternatives."

Part of the reason PSAPs are cheap is that they're unregulated. Hearing-aid fittings and audiological calibrations account for much of the cost of aids from the big six makers—**Siemens**, **Sonova**, **Starkey Hearing Technologies**, **William Demant**, **GN ReSound**, and **Widex**. A midlevel pair that retails for $4,400 costs about $440 to manufacture, according to AARP. Research and development spending is also a factor: Unlike the free Bluetooth standard used by upstarts such as Sound World, old-school hearing aids run on proprietary signal processing and transmission technology. Siemens, Sonova, and Widex declined to comment; GN ReSound, Starkey, and William Demant didn't respond to requests for comment.

Still, being kept out of doctors' offices has been a huge problem for PSAP makers, says Venkat Rajan, who tracks medical devices for researcher Frost & Sullivan. While the size of the market can be difficult to gauge given the lack of regulation, anecdotal evidence suggests sales have been soft, he says. It doesn't help that, according to industry journal the *Hearing Review*, the average American buying a hearing aid is 71 years old. "Trying to find that customer base has been difficult," Rajan says.

The marketing of hearing aids, classified as medical devices by the FDA since 1977, is strictly regulated in the U.S. According to agency guidelines that predate the latest generation of equipment, PSAP makers aren't allowed to market their products as medical devices. Instead, they're supposed to be used recreationally by people who can already hear comfortably. The FDA, which wouldn't say whether it plans to change its rules, occasionally issues warnings to companies it believes to be violating them, so PSAP ads tend to include at least one verbal somersault. An ad for Etymotic describes its latest product, the Bean, thusly: "Not a hearing aid but has many advantages."

The $300 Bean is the brainchild of Mead Killion, the co-founder of Etymotic. He invented the analog hi-fi amplification technology behind the device back in 1988, but says it's only since 2013 that circuitry has become cheap enough for the product to be worth manufacturing en masse. His company uses the same technology in adaptive earplugs designed for orchestra musicians or infantry troops to keep music or conversation audible while dampening loud noises. A decade ago, Killion failed to persuade the FDA that early PSAPs should be sold over the counter. He's lobbying for a contract with the Department of Defense.

Normally, I hear fine, but I conducted a hands-on experiment shortly before an interview with Killion. It became clear that having professional help putting these things in is a good idea. Initially, one Bean in each ear made it easy to hear faraway gossip in a noisy Whole Foods. Then I pushed them too far, and suddenly could hear nothing at all. Killion said the problem was waxy buildup in my narrow ear canals, so the next step was a $150 cerumenectomy—that is, getting a doctor to scrape out gobs of wax and clear the blockage.

The era of Internet diagnosis hasn't eliminated the need for medical professionals, says Erin Miller, president of the American Academy of Audiology. "This is our biggest problem with the PSAPs in general," she says. "We want to make sure someone has looked in the patient's ear." All the more reason, PSAP makers argue, to put their products in medical offices next to those from Starkey and ReSound. For now, the companies' sales will be limited to true believers like Einhorn, the composer. "You have to remember that I'm a maniac," he says. "I will do anything to hear as best as possible in any situation." —*David Gauvey Herbert*

The bottom line New audio technology manufacturers are trying to break into the $6 billion hearing-aid market.

Mobile

Google and Facebook Build a New Internet

▶ They're pushing into developing countries with deals and balloons

▶ "We want it to be the real full-speed, full-color Internet"

Mobile World Congress, a tech industry confab held annually in Barcelona, typically revolves around the newest gadgets and services bound for the wealthiest countries. At this year's conference, which ran from March 2 to 5, **Google** and **Facebook** spent much of their stage time focusing on the other end of the market. Each company has a plan to radically boost the number of people using its services by delivering or lowering the cost of Internet access for billions who aren't online.

In an onstage interview with *Bloomberg Businessweek*, Sundar Pichai, Google's senior vice president of products, laid out new details of **Project Loon**, the company's outlandish-sounding plan to provide wireless connectivity using helium-filled balloons. Each balloon will

FROM LEFT: PHOTOGRAPH BY CAROLL TAVERAS FOR BLOOMBERG BUSINESSWEEK; COURTESY GOOGLE (3)

carry a solar-powered antenna, hover at the edge of the atmosphere, and beam down wireless signals. One should provide Internet access to an area about the size of Rhode Island, so with enough working together, the company will be able to eliminate the need for costly cell towers, Pichai said.

Three years ago, when the project began, Google's "cell towers in the sky" could stay aloft for less than a week and only provide 3G signals on a good day. Today, Pichai said, they average more than six months in the air and keep nearby smartphones operating at 4G or LTE speeds, about 10 megabits per second. "We are well on our way to a platform that by the end of the decade will touch 4 to 5 billion people," he said.

The balloons cost tens of thousands of dollars apiece, according to Pichai, compared with millions for satellites with comparable range. Google says it's testing them with carriers such as **Vodafone** in New Zealand and **Telefónica** in South America, but wouldn't estimate when they'll be ready for mass deployment. Loon engineers are refining their algorithms to account for factors such as wind, and project head Mike Cassidy says they don't want to launch the balloon networks before they're ready. "We want it to be the real full-speed, full-color Internet," he says.

Pichai also talked about the drone planes Google is developing to supplement balloon coverage. He said Titan Aerospace, the maker of high-altitude drones Google bought last year, will start testing its wireless-providing aircraft in the next few months. The idea is that the drone planes will provide Internet access in disaster areas to aid rescue operations or boost capacity in high-demand areas.

Facebook, too, is experimenting with Internet-providing drones and satellites, but is more focused on the ground game, according to Chief Executive Officer Mark Zuckerberg. In a speech at Mobile World Congress, Zuckerberg threw a little shade on both companies' efforts to create aerial wireless networks. "People like talking about that stuff because it's sexy," he said. "But I think that's actually at the fringe of the real work going on."

Zuckerberg said his company's primary attempt to expand online access is Internet.org, a Facebook-led initiative to establish basic standards for Internet service around the world. In practical terms, that means Facebook has assembled a collection of low-bandwidth apps—such as Wikipedia, health-research software, and, of course, Facebook—that it can package and give away to regional carriers for use on the phones they sell. Zuckerberg said he traveled to India, Indonesia, Mexico, Colombia, and China over the past year to evangelize for the program and to persuade people who have never gone online "why they would ever want to be on the Internet."

Helping to bring developing countries online will give Google and Facebook better chances to win over people using the Internet for the first time. And by testing their innovations with regional carriers, both companies may be better able to appease carriers irritated by the bandwidth usage of Google properties such as YouTube or messaging services, including Gchat or Facebook's WhatsApp, that let people avoid paying carrier fees for texts. Joining Zuckerberg onstage were the CEOs of **Millicom International Cellular**, **Airtel Africa**, and **Telenor**. They said Internet.org has boosted their data subscriptions and revenue more than 30 percent.

> **"We are well on our way to a platform that by the end of the decade will touch 4 to 5 billion people."**
> —*Sundar Pichai*

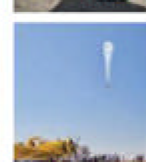
In some emerging markets, Facebook and Google face stiff competition from regional apps, such as China's **WeChat** and **Baidu**. As they try to expand overseas, Zuckerberg and Pichai said they're amenable to pooling resources. Google's search engine is one of the basic Internet.org services, which Pichai said makes him "very excited." Zuckerberg said of Google, "We would love to do more with them." —*Brad Stone*

The bottom line Facebook and Google are developing technology to make the world a friendlier place for Facebook and Google.

Cell Towers in the Sky
The balloons Google has developed to beam wireless 4G Internet access down from the edge of the atmosphere can stay up for more than six months and cover a Rhode Island-size swath of land, according to the company.

A technician fills a balloon with helium while wearing gloves to avoid scratching it

Sensors and the wireless transmitter are encased in insulating material to protect them from the cold



Data

America Roams Far Behind Europe

- ▶ U.S. carriers aren't following foreign companies' fee cuts
- ▶ "I don't think they want to reduce those rates any time soon"

Phones tend to cost more upfront in Europe than they do in the U.S., but the service keeps getting cheaper. Late last year, the European Parliament voted overwhelmingly to bar by the end of 2015 the continent's wireless carriers from levying roaming fees on subscribers traveling abroad. On March 4, European Union governments took a softer approach, saying they'd like to extend that timetable to at least 2018, but there's already been some progress. Regional carriers' roaming data rates fell by ▶

Quoted

“As you might imagine, tech companies are not going to be willing to do that.”

President Obama in a March 2 interview with Reuters objecting to a proposed Chinese law that would require businesses to provide government officials with encryption keys and back-door access to their systems

◀ more than half from 2013 to 2014, according to the commission’s figures.

While the drop is in part a response to government pressure, it’s also been good business. Inaki Berroeta, a regional chief executive officer at No. 2 global carrier **Vodafone**, said in February that in the year since the U.K.-based company introduced a flat daily fee of £5 ($8) for customers traveling in the U.S., Europe, Australia, and parts of Asia, data use abroad jumped 650 percent, and sales rose as well. Wireless providers in other parts of the world are also beginning to cap roaming fees. Leading Japanese carrier **NTT DoCoMo** limits daily international charges to 2,980 yen ($25). South Korea’s **SK Telecom** caps roaming 3G data fees at $90 a day, which isn’t cheap but won’t require a second mortgage.

For Americans, it’s a different story. The largest U.S. carriers still charge about $20 per megabyte for international data use if customers don’t sign up in advance, a rate structure that predates the iPhone or Android. To put that in perspective, the 6 gigabytes of data that cost $60 to $70 a month on a typical domestic plan would cost an American tourist $120,000 in Europe. Customers of **Verizon**, **AT&T**, and **Sprint** who arrange for international data packages can get rates that are less jaw-dropping, but the 6GB bundle still runs about $1,500, about the cost of a year’s worth of wireless service for most Americans. It’s $150 or more for a 1GB package, enough to cover a few hours of music on Pandora, a couple of shows on Netflix, a critical app update, and a week’s worth of e-mail. Despite soaring mobile data use, U.S. companies haven’t announced plans to change rates. “It’s a complex system,” says Verizon spokeswoman Debra Lewis. “There’s lots of different layers that determine rates, like regulatory and tax issues in different countries.” AT&T and Sprint declined to comment.

Last year, No. 4 U.S. carrier **T-Mobile US** said it would stop charging for its standard international roaming, but the free version runs at 2G speeds. Business customers can pay $25 upfront for 150MB at faster rates, says company spokeswoman Brandy Bishop. While she says the free offering is good enough for e-mail and some Web browsing, she says “some applications, like streaming music or video, may be more difficult.”

Although many of the technological issues that made roaming expensive aren’t a problem for 4G connections, there simply isn’t enough customer outrage in the U.S. to push the largest carriers to cut prices, says Lynnette Luna, an analyst at market researcher Current Analysis. “One of the last bastions of really high margins is international calling and roaming,” she says. “I don’t think they want to reduce those rates any time soon.”

In many countries, you can walk into a convenience store and buy a prepaid SIM card from a local carrier that you can swap into your phone. Most U.S. smartphones, however, aren’t set up to let people easily change out SIM cards; U.S. wireless contracts often require users to obtain their carrier’s permission before doing so.

In lieu of lowering roaming prices, U.S. carriers are simply warning customers about increased costs when they use their phones abroad, says Roger Entner, an analyst at Recon Analytics. “There are now alerts when you land that inform you of how expensive it is, to avoid any kind of nasty surprises,” he says. *—Ian King, with Scott Moritz and Amy Thomson*

The bottom line For Europeans, streaming video or browsing the Web abroad costs one hundredth what it can for Americans.

Hardware

Why Use an ATM When You Can Pay More?

▶ Russians take out loans for 2 percent interest per day

▶ “I have a banking card, but its balance is zero”

Walking past a row of vending machines and ATMs at the Kursky train station in Moscow, Sergei Amirkhanov stops in front of a bright orange cash machine. Instead of inserting his bank card, he scans his passport, poses for a photo, and enters his mobile phone number. A few minutes later, he gets a text telling him to return for the money he requested. He didn’t withdraw it from a savings account—he took out a loan.

Loan ATMs, designed to process applications and dole out money on the spot, began popping up at railway stations and shopping malls around Moscow last year. There are about 20 in the Russian capital, allowing people to request as much as 15,000 rubles ($242) that must be paid back in 20 days or less. The interest rate is 2 percent a day, which works out to 730 percent on an annualized basis.

That may seem insane, but some Russians are embracing the technology to make ends meet between paychecks. Amirkhanov, 37, took out a $48 loan after he lost his construction job at a Moscow power station in February; his bank won’t lend him cash, and he has a family to support. “I have a banking card, but its balance is zero,” he says. “I am in a desperate situation.” He got 15 days to pay back the $48 with $15 interest.

Banks in Russia

Russians can scan their passports to receive loans within minutes

FROM LEFT: ANDREW HARRER/BLOOMBERG; ANDREY RUDAKOV/BLOOMBERG; COURTESY FLYABILITY

have tightened lending as the ruble's value has fallen. In stepped Oleg Boyko, a Russian billionaire who made his fortune running slot-machine halls. Boyko's taken that business to countries including Germany, Spain, and Latvia since President Vladimir Putin banned gambling in Russia in 2009. In his home country, Boyko continues to control the gambling empire's corporate parent, Finstar Financial Group, which owns loan-machine operator **SMS Finance**. The kinds of loans the machines dispense tend to take advantage of customers with poor credit who don't know enough about their financial options, says Olga Naydenova, an analyst at BCS Financial Group. "Their rates are way too high," she says. "People who go for them are mostly those who have problems either with employment or credit history."

Alexander Artemov, the general manager of SMS Finance, says its machines are an alternative for people who lack reliable access to the Internet or don't trust it with their data and that the machines are next headed to Poland and Spain. "Our objectives are about profitability and return on investment," he says. "A big part of what we are offering to people is convenience." Until earlier this year, SMS was housed within another Boyko subsidiary, 4Finance Holding. While Artemov declined to disclose data on loan revenue or volume, 4Finance Chief Executive Officer Kieran Donnelly says his company received more than 11 million micro-loan applications in a dozen European countries last year, mostly online, and lent $944 million.

As with any loan, collecting can be the trickiest part. In Russia, SMS customers can pay back their loans at a local bank or electronics store, online, or by using a digital payment system such as Qiwi or Yandex.Money. If someone blows a deadline, company representatives send e-mails and texts, make calls, and after two or three months may hire debt collectors. So far, about 10 percent of borrowers have defaulted on their loans, but the company is recovering 55 percent of overdue debt, says Artemov. Even by casino standards, those are pretty good house odds. —*Ilya Khrennikov*

The bottom line Machines that offer payday loans with 730 percent annualized interest may be headed west after rolling out in Moscow.

Edited by Jeff Muskus
Bloomberg.com

Innovation

Crash-Proof Drone

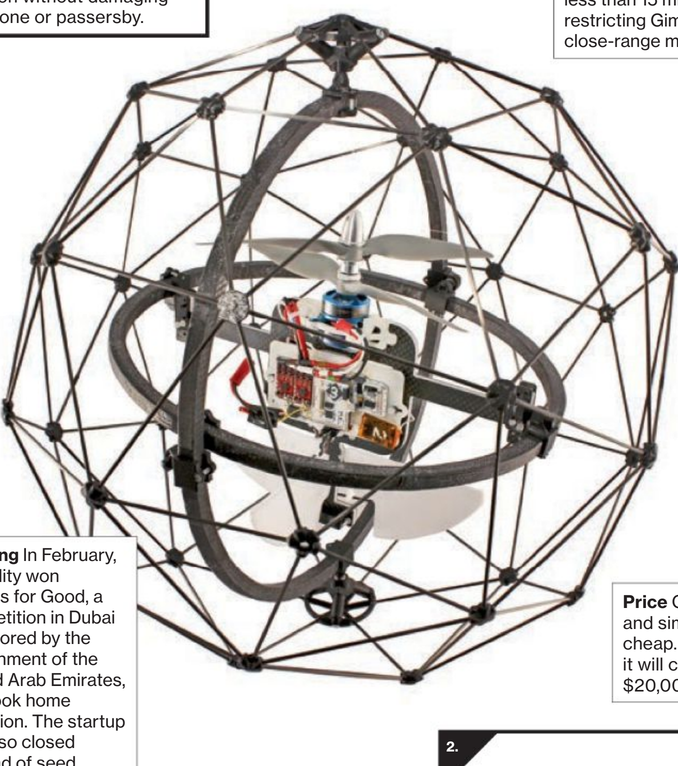
Form and function
Flyability's Gimball drone, designed to mimic the resilience of a fly, has a geodesic, carbon-fiber shell that allows it to safely bounce off obstacles and people without damage or injury. It was originally conceived to aid disaster-relief workers.

Innovators Patrick Thévoz and Adrien Briod
Ages Both 29
Chief executive officer and chief technology officer, respectively, of 10-person Flyability in Lausanne, Switzerland

1.
Shielding The 13-inch quadcopter is attached to the cage by a system of pivoting supports that lets the cage revolve on collision without damaging the drone or passersby.

Background Thévoz and Briod founded Flyability last year after developing Gimball at a Swiss technical university.

Power The lithium battery lasts a little less than 15 minutes, restricting Gimball to close-range missions.



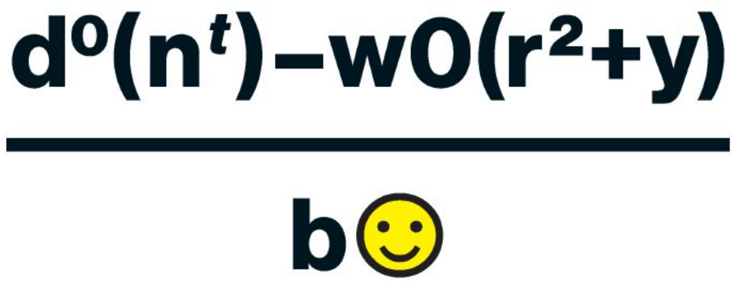
Funding In February, Flyability won Drones for Good, a competition in Dubai sponsored by the government of the United Arab Emirates, and took home $1 million. The startup has also closed a round of seed funding from angel investors but won't say how much.

Price Gimball is light and simple but not cheap. Flyability says it will charge at least $20,000 per unit.

2.
Operation Optical and thermal cameras mounted on the drone relay live footage to a remote control.

Next Steps

Thévoz says Gimball's first test market later this year will be industrial clients interested in using the drone to inspect bridges, ships, and power plants. He's working to raise an additional $2 million to cover production costs and fix remaining bugs. Colin Snow, the founder of industry consultant Drone Analyst, says Flyability will need to take care to keep Gimball's cage from impeding its visual clarity. "It doesn't lend itself to good definition," he says. —*Belinda Lanks*



JPMorgan Won't Show Its Work

▶ **The bank's impressive mutual-fund-group performance figures come with little explanation**

▶ **"Leading investment performance leads to leading investment flows"**

Last month at **JPMorgan Chase**'s 2015 investor day—where executives discuss results for the previous year in front of analysts and shareholders—the bank displayed impressive numbers for the performance of its mutual funds. Pie charts in the asset management unit's presentation showed the percentage of money invested in funds that ranked in the top half of their categories: In fixed-income funds with 10-year records, the figure was 85 percent; for stock funds with 10-year records, it was 83 percent.

The presentation included a five-and-a-half-page appendix discussing sources and methods. While the notes on mutual fund and alternative asset performance include statements such as "the analysis excludes Brazil and India domiciled funds"—without saying why—they do not provide full details of how the calculations were done. Even so, that marked a big change from the previous year's presentation, where similarly impressive numbers were displayed with a 30-word source line citing Lipper, Morningstar, and Nomura—and nothing else. "What the heck were they thinking with the 2013 report?" asks Anita Krug, associate dean at the University of Washington School of Law in Seattle.

The two approaches—no explanation a year ago and long notes this year—raise questions about how JPMorgan has come up with a set of numbers describing a key part of its business. The U.S. Securities and Exchange Commission says companies can't mislead investors in public presentations. "Disclosures should be written so people without any particular financial background can understand them," says Mercer Bullard, director of the University of Mississippi School of Law's Business Law Institute and a former SEC official.

JPMorgan's asset management unit posted record revenue and profit in 2014. A big part of that came from the bank's mutual fund operation, which, with assets of $443 billion, has made JPMorgan the world's fastest-growing active mutual fund manager, according to the bank. "Leading investment performance leads to leading investment flows,'' said Mary Erdoes, chief executive officer of JPMorgan asset management, during her investor day remarks on Feb. 24.

Saying that a certain percentage of assets are above-average doesn't convey a lot of information. It doesn't say how many of the bank's 746 funds are doing better than their peers or how much money investors are making. The presentation to investors is aimed at people who own JPMorgan stock, not those who put money into its mutual funds.

It's not as if the company doesn't have anything to brag about. Its U.S. Equity Fund, for example, with $13.6 billion in assets, has an average annual return of 9.1 percent for the 10 years through March 3, according to Morningstar, topping the 7.9 percent return of the Standard & Poor's 500-stock index. That's a more typical way of looking at the performance of mutual funds.

A year ago, a list of achievements in JPMorgan's investor presentation included the statement: "80 percent of 10-year mutual fund AUM [assets ▶

ILLUSTRATION BY 731

under management] in top 2 quartiles." Asked about such numbers in November, JPMorgan declined to provide details of the calculations for publication. So Bloomberg asked two fund research companies the bank cited as sources—Lipper and Morningstar—to come up with their own estimates. (All calculations exclude money-market mutual funds.) Lipper, using its standard methods, calculated that 64 percent of the bank's funds ranked in the top half of their categories, after adjusting for assets—giving greater weight to bigger funds. Morningstar, which didn't adjust for assets, came up with 58 percent. As for Nomura, the third source JPMorgan cited, Nomura Holdings said it doesn't compile comprehensive fund-performance data. A company called Nomura Research Institute said it does track fund performance in Japan but declined to provide data.

Many of the numbers for JPMorgan's "alternatives/absolute return" category, which includes hedge funds, funds of hedge funds, some mutual funds, and money managed in separate accounts, are not public. According to the bank's 2014 presentation, 97 percent of alternative assets beat their benchmarks for the previous 10 years. In 2015 that figure rose to 100 percent. Working from their own, more limited data on JPMorgan's alternative assets, Morningstar and Lipper got different numbers. Morningstar said 33 percent of JPMorgan's alternative assets beat their benchmarks over the previous 10 years. Lipper's figures show that only 14 percent did.

Three Views of Fund Performance

JPMorgan said

80%

of its 10-year mutual fund assets under management were in funds that ranked in the top half of their categories, as of Dec. 31, 2013, citing Lipper, Morningstar, and Nomura

Lipper said

64%

of JPMorgan mutual funds with 10-year records ranked in the top half of their categories as of Dec. 31, 2013, adjusting for assets and currencies

Morningstar said

58%

of JPMorgan mutual funds with 10-year records ranked in the top half of their categories as of Dec. 31, 2013, without adjusting for assets or currencies

"Bloomberg's analysis is incorrect," Darin Oduyoye, a JPMorgan spokesman, wrote in an e-mail. "The 10-year alternatives statistics cited from Morningstar and Lipper only includes publicly available mutual funds, which are a small portion of J.P. Morgan's AUM in this category, as most of the AUM is in privately offered investment accounts." A footnote in JPMorgan's 2015 presentation cautions that "the source for all data used is J.P. Morgan. It is calculated on a best efforts basis and is used for illustrative purposes only. It is considered preliminary and unaudited and not meant to represent an official performance composite of the Firm."

Shortly before this year's investor day, JPMorgan provided Bloomberg with what it called an illustration of how it reached the 80 percent number. Using Morningstar Direct, a Web-based tool, it looked at all the funds with 10-year records. It checked each one's ranking within its category for the 10-year period and its assets in the final month of the period, and concluded that 79.8 percent of the assets were in funds that ranked in the top two quartiles of their categories.

Weighting each fund based on its assets and ranking at the end of a period—as JPMorgan did—may give too much importance to winners and not enough to losers, says Michelle Swartzentruber, a senior research analyst at Morningstar. "Year-end current AUM is commonly used in the asset management industry to analyze a firm's financial strength and earnings potential," Oduyoye says. "Given that the audience for investor day and the annual report is JPMorgan Chase shareholders and equity analysts, current AUM is more relevant to their analysis."

Morningstar's method differs from JPMorgan's. To reflect each fund's ups and downs, the company typically calculates its rank within its category for every month to come up with an average ranking for the period, and does the same with assets. In effect, it uses a video of the fund, not a snapshot. That way, a fund that had a couple of hot years early in the 10-year period, attracted more cash from investors, and then saw its performance level off doesn't get too much credit for those first strong years, when it was investing a relatively small amount of money.

"It would be nice if there was a consistent way for fund companies to produce this type of information." —*Michelle Swartzentruber, Morningstar*

Using its standard methods for calculating asset-weighted returns, Morningstar finds that JPMorgan's funds outperformed 57.5 percent of similar funds on average. "It would be nice if there was a consistent way for fund companies to produce this type of information, so there's not this jumble of percentiles and methodologies," Swartzentruber says.

Do other money managers run into these statistical thickets? An unscientific sampling of 10 financial companies' annual reports found nothing like JPMorgan's pie charts. Several companies offered no fund-performance claims in their reports, including **Bank of America**, **Citigroup**, **Morgan Stanley**, and **Wells Fargo**.

Invesco included a table showing asset-based rankings for different types of funds. Its worst performers were funds investing in U.K. stocks, of which only 11 percent ranked in the top half of the category. Stable-value funds were the best: 100 percent ranked in the top half. As data sources, Invesco listed Lipper, Morningstar, IMA, Russell, Mercer, EVestment Alliance, Sitca, and Value Research. A spokesman for Invesco declined to comment. —*Neil Weinberg*

The bottom line JPMorgan's calculations of its mutual fund family's performance are hard to re-create.

Real Estate

Turning a Mansion Into a Laundry

▶ **Prime British properties are convenient homes for dirty cash**

▶ **"We are saying it looks like there's a problem here"**

On the Bishops Avenue in London—also known as Billionaires Row—seven-bedroom Carlton House is for sale for £14 million ($21.4 million). British courts seized the home along with other assets from Mukhtar Ablyazov, the onetime chairman of **BTA Bank**,

Carlton House

Bedrooms 7

Features Underground pool, 50-foot ballroom, elevator, electronic food lift between floors, crystal chandeliers, built-in sound system throughout, underground garage with car lift, 10-person Turkish bath

Asking price £14m ($21.4m)

The accused

For lying about his ownership of Carlton House, Ablyazov received a jail sentence of 22 months

after the Kazakhstan bank accused him of embezzling about $6 billion. It took a ruling by the U.K. High Court to establish that the home belonged to Ablyazov, because the property was bought through a network of offshore companies that hid his identity. He argued it was his brother-in-law's, and said he rented it after his family moved to England in 2009. Ablyazov "is the victim of a massive fraud committed against him by a dictatorial regime," according to a statement from his lawyer, Peter Sahlas.

Buying expensive homes in the U.K. through trust funds and companies based overseas is popular among the rich as a way to minimize taxes and protect privacy. The practice also makes it difficult for law enforcement and the courts to establish whether their owners bought them legitimately. More than a quarter of the homes sold for more than £1 million in prime central London in the 12 months through June 2013 were bought by people who aren't based in the U.K., says Knight Frank, a real estate brokerage.

Hundreds of billions of pounds classified as the proceeds of crime are laundered in Britain every year, and London's booming property market is one of the more popular ways to do it, according to the National Crime Agency. Real estate's role in laundering money is "not one we understand well enough by any stretch of the imagination," says Donald Toon, director of the agency's economic crime unit. "We're not saying that money laundering is endemic in the property market, but we are saying it looks like there's a problem here."

A new tax on luxury homes owned by corporations yielded £100 million last year, almost five times more than expected, according to Her Majesty's Revenue and Customs. As part of the levy, companies have to pay as much as £143,750 a year to keep the names of their owners private if the residential property is valued at more than £1 million and the companies don't lease it out. The amount raised shows there's a "big preference for secrecy," says Nick Maxwell, head of research at Transparency International. A March 4 report by the group called on the government to require foreign companies that buy property in the U.K. to disclose the names of their real owners.

The surprise windfall from the secrecy tax prompted the National Crime Agency to start examining whether some of the houses had been bought to launder money. The government plans to publish its first national risk assessment of money laundering and terrorist financing this month, a Treasury spokesman says. Legislation is also being drawn up requiring the ultimate owner of any U.K. company to be listed on a public registry.

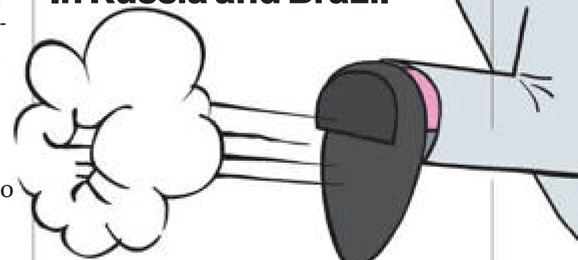
More than 12,500 London properties, with a total value of at least £48.5 billion, were sold by offshore companies from 2012 through 2014, Land Registry data compiled for Bloomberg News show. The registry has information only on sales, not purchases. At least a third of the sellers were located in the British Virgin Islands. That's where **Mount Properties**, which bought Carlton House, is based. Mount Properties is in turn owned by **Mega Property**, based in the Marshall Islands, according to the High Court ruling on Ablyazov's assets. Neither jurisdiction requires disclosure of beneficial owners of companies.

The High Court found Ablyazov in contempt for lying about owning the home and other assets. After he didn't show up for his sentencing hearing—he got 22 months in prison—it was discovered that he'd fled the U.K. He's now in jail in France, waiting to hear if he'll be extradited to Russia or Ukraine—where BTA has branches—to face criminal charges in the embezzlement case. —*Neil Callanan and Suzi Ring*

The bottom line A tax on luxury homes owned by corporations that shield owners' names yielded £100 million last year.

Mutual Funds

Pimco Takes a Fall In Russia and Brazil



▶ Customers flee emerging-markets bond funds after poor returns

▶ "A lot of their long-term investing preferences have hurt them"

Pacific Investment Management Co. is facing an emerging-markets exodus. The fixed-income powerhouse is seeing unprecedented client defections from its developing-nation mutual funds after poorly timed investments led to below-average returns. Since the start of 2013, customers have pulled about $10 billion, or more than 20 percent of the assets in the funds, according to data from the company and Bloomberg estimates. ▶

FROM LEFT: TOM HALL/BLOOMBERG; PHILIPPE MERLE/AFP/GETTY IMAGES; ILLUSTRATION BY 731

◀ Michael Gomez, who succeeded Mohamed El-Erian as head of Pimco's emerging-markets investing in 2005, has problems across the portfolio. Total assets in 11 emerging-markets mutual funds managed by Gomez have fallen to below $28 billion, from a peak of about $51 billion in 2013, as a result of investment losses and customer withdrawals, Bloomberg data show. His $8.6 billion **Emerging Local Bond Fund**, which buys bonds denominated in currencies of the nations that issue them, has underperformed two-thirds of similar funds over the past three years. Clients pulled $3.7 billion from the flagship **Emerging Markets Bond Fund** last year, according to Bloomberg data, leaving assets of only $2.5 billion.

$28b

Total assets in 11 Pimco emerging-markets mutual funds, down from about $51 billion in 2013

Losses on the bonds of companies such as Eike Batista's **OGX Petroleo & Gas Participacoes** have hurt Pimco's reputation in the corporate-debt market, where its main fund, **Emerging Markets Corporate Bond**, has lost more than three-quarters of its assets in a year and a half. "A lot of their long-term investment preferences have hurt them over the last few years," says Karin Anderson, a Morningstar analyst, adding that wagers on Russia last year and Brazil in 2013 helped crimp returns. "They're able to take really big bets," she says, "and some of them didn't go their way recently."

Debt sold by Brazil's state-controlled energy company, **Petroleo Brasileiro**, which Pimco lauded as an attractive investment in April, has plunged since November amid a corruption investigation that led to the resignation of Chief Executive Officer Maria das Graças Foster. In Russia, government and corporate bonds tumbled in the final months of 2014 as the conflict in Ukraine, collapsing oil prices, and international sanctions pushed the country to the brink of recession.

"In a bull market, the easiest way to outperform is to take a bit more risk than the benchmark," Kieran Curtis, an emerging-markets debt manager at Standard Life Investments in London, wrote in an e-mail. "Clearly this doesn't work in the type of markets we've seen the last couple of years."

Michael Reid, a Pimco spokesman, said in an e-mail that "the investment themes in Pimco's emerging-markets portfolios are based on long-term views that, despite recent volatility, offer compelling risk-reward opportunities for investors willing to be patient and selective."

Other money managers are struggling, too. Total assets at the **Pictet-Emerging Local Currency Debt** fund have fallen to less than $6 billion from $14.4 billion in 2013, while Fidelity Investments's **New Markets Income Fund** has seen customers pull $2.7 billion in the last two years.

Pimco's woes have been exacerbated by the discord that led to the 2014 exit of Co-Chief Investment Officers El-Erian and Bill Gross. After Ramin Toloui, Pimco's emerging-markets co-head, left for the U.S. Treasury Department last year, Morningstar lowered ratings for Pimco's developing-nation funds. "That's not a recipe for gathering new money," says Todd Rosenbluth, the director of mutual fund and ETF research at data firm S&P Capital IQ. "The departures at the fund family level, that has caused the bleeding to continue." —*Boris Korby and Ye Xie*

The bottom line Customers have pulled about $10 billion from Pimco's emerging-markets bond funds since the start of 2013.

Investing

High-Speed Trading Comes to Japan

▶ Traders can't keep up and are losing their jobs to algorithms

▶ "In the end the machines exterminate all the humans"

Yuji Honkawa knew humans were losing by April 2010, when, no matter how fast he sent orders to be filled at the Tokyo Stock Exchange, a machine beat him. Since then he's watched as the market sped up further and automated traders went from generating 10 percent of orders at the start of 2010 to as much as 72 percent last year. Unemployed now after 20 years dealing equities at seven different brokerages, Honkawa estimates that among the men and women he battled to get prices for clients, 80 percent have left the industry. "It's kind of like *The Terminator*," he says. "The story is about humans and machines battling it out, and in the end the machines exterminate all the humans."

The increase in high-frequency trading has drawn widespread attention in the U.S. Critics such as Michael Lewis, whose best-selling book *Flash Boys* painted the HFT crowd as villains, argue the practice gives people with the fastest computers an unfair advantage. The rise of the machines in Japan has gotten less attention. The daily frenzy takes place quietly, in two TSE data centers overlooking Tokyo Bay. Developed by Tokyo Electric Power, the buildings, sitting atop one of the largest electricity substations in Japan, are designed to withstand earthquakes, tsunamis, and typhoons.

Inside, thousands of servers belonging to high-frequency traders, brokers, and the Tokyo exchange are stacked in refrigerator-size cages. Linked by miles of fiber-optic cable running along walls and ceilings, the machines are involved in almost every stock, future, and option trade. Since 2010 the value of shares bought and sold annually through HFT computers housed alongside the exchange's own systems has more than tripled, to almost 270 trillion yen ($2.3 trillion), according to TSE data.

The machines are programmed and overseen by the same high-frequency specialists that dominate U.S. exchanges, including **Virtu Financial**, **Tower Research Capital**, and **Hudson River Trading**. In all, several dozen companies use software to match buy and sell orders on the TSE's electronic trading platform at speeds more than 1,000 times faster than was possible five years ago, when the platform was introduced. Using everything from statistical arbitrage to artificial intelligence, the computers make money by exploiting tiny gaps between sellers' and buyers' prices. On average, speed traders bought and sold more than $9 billion in shares a day last year, firing off about 1,000 orders a second, exchange data show.

"HFTs have the ability to magnify noise. The high intraday volatility is a real pain." —*Goya Nakao, Sompo Japan Nipponkoa Asset Management*

As in the U.S., the ascent of HFT has been a catastrophe for human securities dealers.

Despite a 72 percent rise in daily trading from 2009 through last year and the highest profits in almost a decade, Japanese brokerages have cut 8,262 jobs over the last five years, Japan Securities Dealers Association data show.

Investors have concerns, too. Some say Japan's HFT revolution has spurred volatility and, as a result, increased trading costs. "HFTs have the ability to magnify noise," says Goya Nakao, a senior investment manager at Sompo Japan Nipponkoa Asset Management. "The high intraday volatility is a real pain."

In the U.S., high-frequency traders often post orders and immediately cancel them to glean information, a tactic U.S. critics say destabilizes markets. The Tokyo exchange charges a small fee, typically less than 1 yen per share, on every stock order, whether it's executed or not. The tax was imposed in 2005 to slow a flood of orders from online brokerages, but it's now helping to control HFT, says Tsuyoshi Otsuka, a manager in the strategic planning group at TSE. "I sometimes hear complaints that it prevents them from sending a ton of orders," Otsuka says, "so it seems to be having a deterring effect."

Large brokerages in Japan have replaced human traders with software designed to go head-to-head with automated traders, the same algorithmic answer deployed in the U.S. to foil HFTs. Dickson Mok, the head of central dealing at Pinebridge Investments Asia, says his solution to the problem of high-speed trading is to take his biggest orders to other trading venues. "We prefer to do blocks off the exchange to minimize market impact and prevent HFT traders" from gleaning information, he says.

Honkawa, an HFT casualty, says the computers are simply doing what he and other dealers always tried to do: move more quickly than the other guy. "The winners are the ones who can buy and sell faster than everyone else," he says. "That core principle is still true in today's market. The only thing that's changed is how we do the buying and selling." —*Yuji Nakamura and Toshiro Hasegawa*

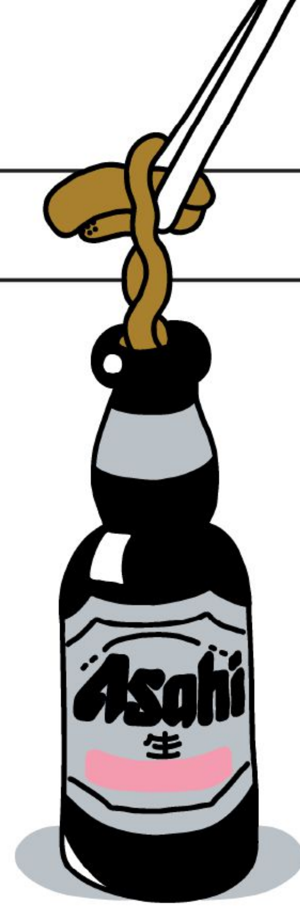
The bottom line The volume of shares handled by high-speed traders in Tokyo has more than tripled since 2010, to $2.3 trillion a year.

Edited by Eric Gelman
Bloomberg.com

ILLUSTRATIONS BY OSCAR BOLTON GREEN

Bid/Ask

By Kyle Stock



$1.4b

Asahi Group gobbles up a food company. The Japanese conglomerate, best known for beer, is buying the food unit of Itochu, another Japanese company. Asahi already owns about a quarter of the business, which operates under the name China Foods Investment and makes cooking oil and instant noodles, among other things. Itochu is raising cash for a $5 billion investment in Citic, a Chinese conglomerate.

$12b

NXP Semiconductors merges with Freescale. NXP, formerly a unit of Philips, specializes in chips used in smartphones; Freescale makes similar products for cars.

$4.3b

Citigroup flips its subprime lender to Springleaf Holdings. The bank tried to sell OneMain Financial Holdings for $1 billion in 2009.

$3b

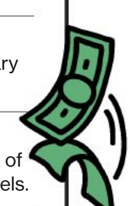
Hewlett-Packard purchases Aruba Networks. Aruba, which specializes in wireless networking, helps HP move further from its reliance on personal computers.

$1.9b

Johnson & Johnson sells Cordis. Cardinal Health, a medical device and supply giant, bought the unit, which specializes in heart catheters and stents.

$1.6b

Boston Scientific buys Endo International's urology business. The purchase includes treatments for urinary incontinence and erectile dysfunction.

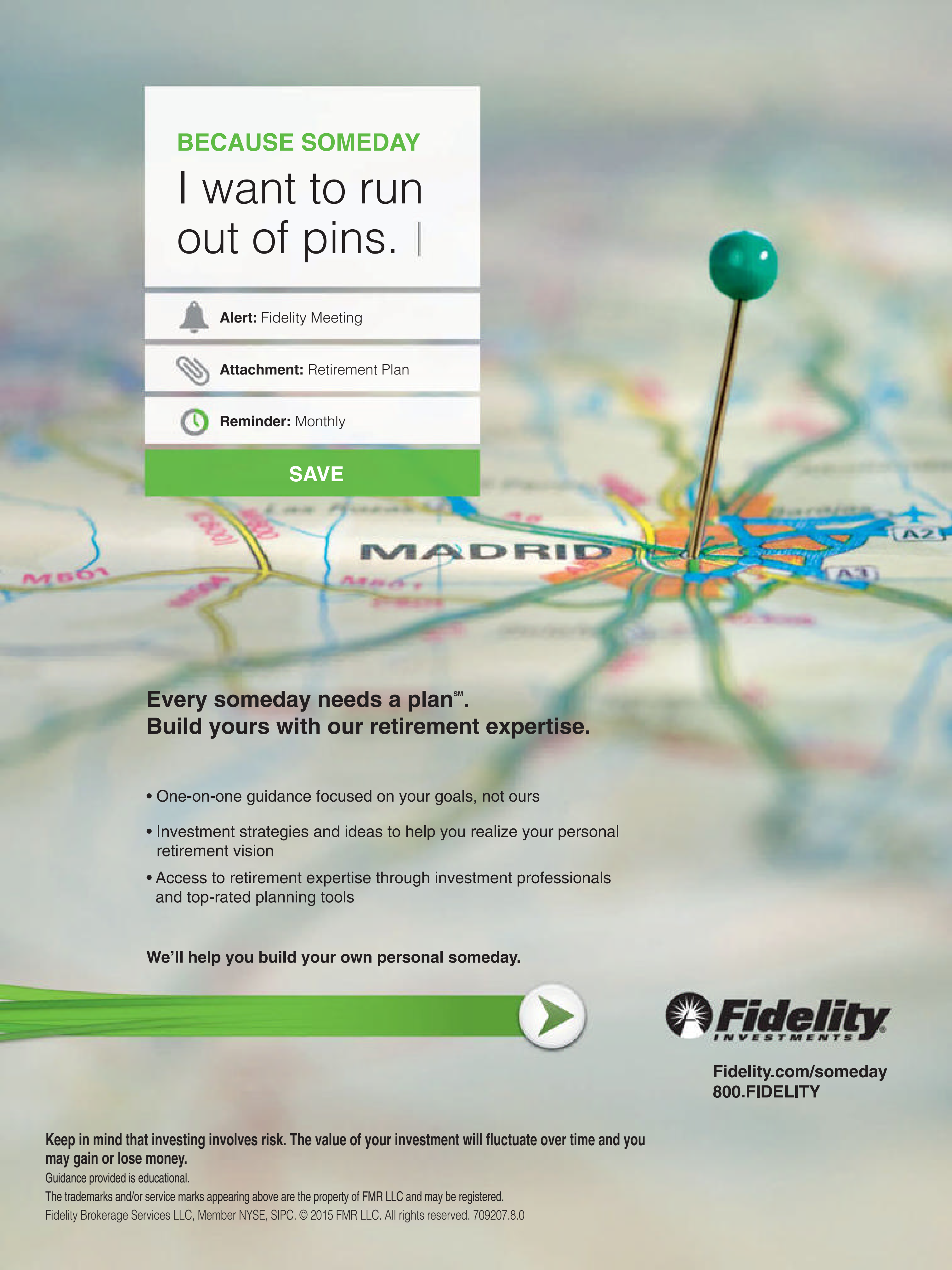


$1.2b

The U.K. gets off the train. The government sold its 40 percent stake in Eurostar International, the network of high-speed trains connecting London, Paris, and Brussels.

$777m

Abertis Infraestructuras wires up in Italy. The Spanish conglomerate bought Wind Telecomunicazioni, a unit of Russia's VimpelCom, gaining 7,377 telecom towers.


BECAUSE SOMEDAY
I want to run out of pins.
Alert: Fidelity Meeting
Attachment: Retirement Plan
Reminder: Monthly
SAVE
MADRID
Every someday needs a plan℠.
Build yours with our retirement expertise.
• One-on-one guidance focused on your goals, not ours
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March 9 — March 15, 2015

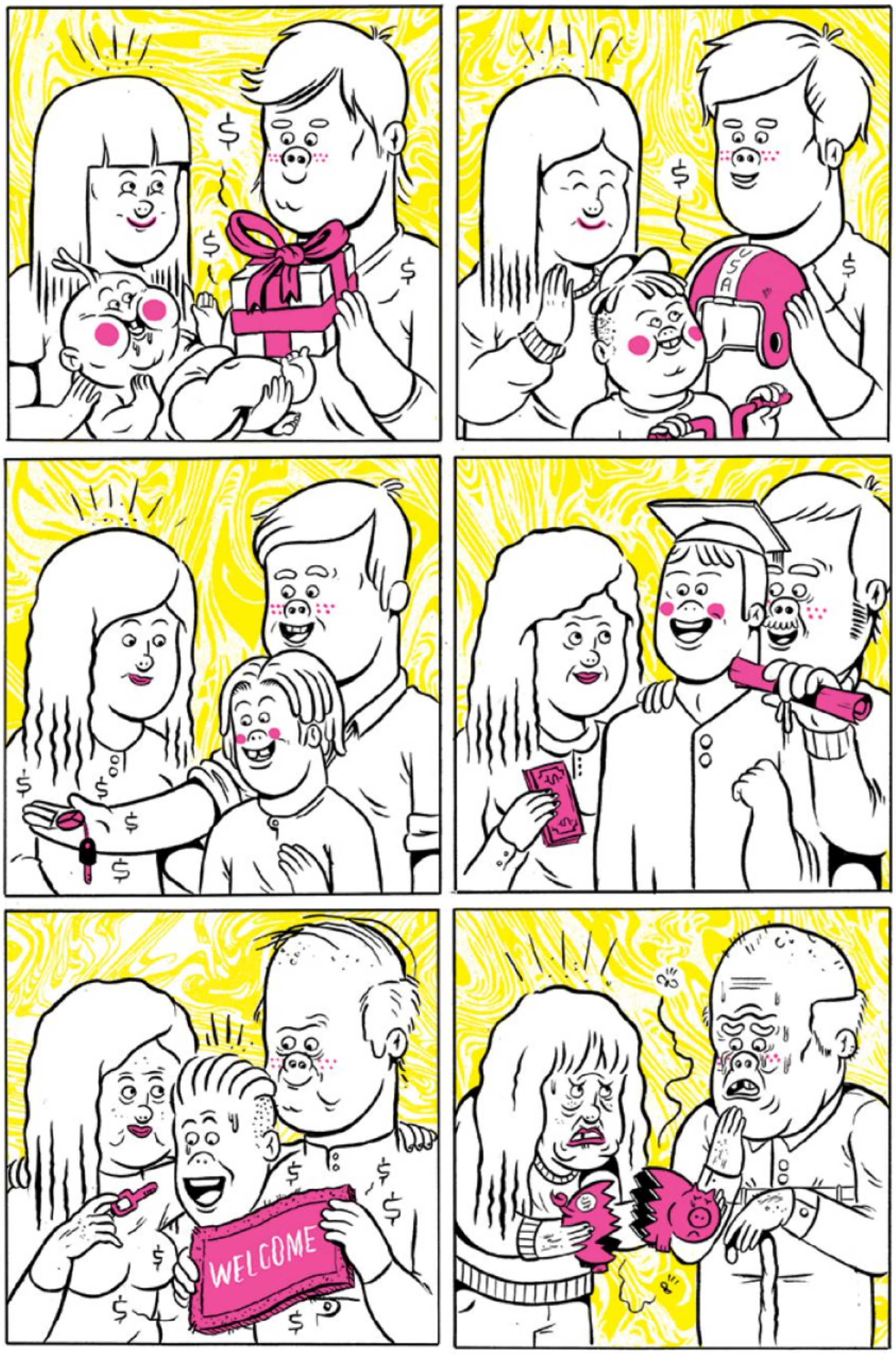


ILLUSTRATION BY MANUEL DONADA

Time to Be Selfish

▶ **Parents are risking their retirement to subsidize their kids**

▶ **"You have to say to grown children, 'I don't have it to give'"**

Cathy Egan has been supporting herself since she was 18, when she worked as a waitress in Minneapolis. Her 23-year-old son lives at home and relies on his single mother for transportation, food, and other expenses. Egan, now 50, only began putting money aside for retirement five years ago, after she started working as a licensed practical nurse for the Veterans Health Administration—her first job with benefits. Although she also has a son in high school, the single mother can't bring herself to cut off her eldest, who earns $8.50 an hour plus tips delivering takeout orders part time for a restaurant in St. Paul. "Right now, I'm still the supporter," she says.

Baby boomers are putting their retirements at risk by spending too much on their adult children. With real wages stagnant and unemployment among those age 16 to 24 running above 12 percent, large numbers of households continue to dole out cash to children no longer in school, covering rent, cell phones, cars, and vacations.

A July 2014 survey by American Consumer Credit Counseling, a Boston nonprofit, found that a higher proportion of U.S. households (1 in 3) provide financial assistance to adult children than support for elderly parents (1 in 5). "This is putting a huge wrench into retirement savings," says Pamela Villarreal, a senior fellow with the National Center for Policy Analysis in Dallas. "The more boomers put out for adult kids, the less they can put aside for themselves, which is scary as they live longer and need savings to last them into their 80s and 90s."

More than a third of adult millennials receive regular financial support from their parents, and 1 in 5 still live at home and don't pay rent or expenses, according to a November 2014 survey by Bank of America. It isn't just the unemployed or the low-paid who are needy. The poll, which had 1,000 respondents between the ages of 18 and 34, found that among those earning more than $75,000 a year, 25 percent had their parents pay for groceries at some point and 21 percent got money for clothing.

Brett Goldstein, a financial adviser in Jericho, N.Y., hasn't had much success dissuading clients from prematurely ▶

◀ withdrawing money from their individual retirement accounts to cover expenses for grown children. "I've learned it's very hard to get between a parent and his or her children, even when the parent has very modest savings," he says. One client in his mid-50s recently withdrew $32,000 from a $140,000 IRA account to pay for his daughter's wedding, Goldstein says. Another couple with IRA accounts totaling about $200,000 cashed out $61,000 to help pay for their daughter and son-in-law's first home.

Parental largesse doesn't have to reach such extremes to be potentially harmful. Consider that couples age 55 to 64 had just $111,000 in savings for retirement in 2013 (the median balance in 401(k) and IRA plans), according to the Federal Reserve's most recent Survey of Consumer Finances. That will amount to a little more than $4,000 a year in retirement, assuming an annual 4 percent withdrawal rate. If parents have extra money left over each month, they should be maxing out their contributions to 401(k) plans or paying down mortgages or other debt, not subsidizing their kids, financial advisers say. "You can't take out a loan for retirement," says John Sweeney, executive vice president for retirement and investing strategies at Fidelity Investments. "So the less well-off you are, the more you have to say to grown children, 'I don't have it to give.'"

Gillian Anderson, head of Anderson Wealth Management in Westport, Conn., says so many of her clients are helping their 20- and 30-something kids financially that she advises other parents who consult her to budget for the possibility that they may have to do the same. "It runs the gamut from giving regular allowances because millennials often aren't earning enough to cover rent and food, to help with legal bills if a child is going through a divorce, to occasional payments for a coat or plane ticket," she says.

Whatever the reason, this prolonged support is squeezing even affluent boomers. The executive director of a nonprofit in Seattle gave her daughter and son-in-law a total of $12,000 in 2014 to pay for child care, home repairs, and other bills—and plans to give at least as much this year. The 66-year-old woman earns $230,000 a year, while the couple are working professionals in their 30s with a combined annual income of about $115,000. The mother, who asked not to be identified because she didn't want friends and work colleagues to know about her situation, says she'd like to retire, but her financial planner has warned her that the $2.5 million she's set aside will run out by her early 80s at her current rate of spending.

A 48-year-old woman who lives in Westport, Conn., sheepishly admits that she and her husband, a finance executive, give their 22-year-old daughter tens of thousands of dollars each year to supplement the $30,000 she earns as a writer at a beauty website. The money covers her share of the rent on a Brooklyn (N.Y.) apartment, her frequent use of Uber car services, clothing purchases, and regular manicures and pedicures. "I tell my daughter, 'We're going to help you, but do you really need to buy $4 lattes every day and $14 kale salads?'" says the mother, who didn't want to be named because she doesn't want to embarrass her daughter or her husband. "When I was 22, I ate pizza every night."

"I've learned it's very hard to get between a parent and his or her children, even when the parent has very modest savings."
—Brett Goldstein, financial adviser

The couple have a comfortable six-figure income but haven't purchased long-term care insurance for themselves or put aside all they'll need—at least $10 million—to maintain their lifestyle in retirement. They wonder if and when their daughter will become self-sufficient and whether their son will also expect continued support after he graduates from college in a few years. "We're stuck between a rock and a hard place, because we want our kids to be happy," she says.

Egan is also torn. "I wanted to give my boys more help than I got growing up," she says. She makes about $23 an hour working a 5:30 a.m.-to-2 p.m. shift at a VA hospital in Minneapolis and earned about $50,000 last year, including overtime. Egan puts 3 percent of her income into an employer-sponsored savings plan, which gets matched, and has accumulated about $15,000 so far. She'll also be eligible for a small pension if she continues working for the federal government for at least another five years. She knows she's a long way from having enough to retire comfortably. "I don't want to be a burden on my kids when I'm old," she says.

Fidelity's Sweeney says it's a bad idea even for affluent parents, to fund their adult kids. "Giving them tens of thousands of dollars a year for apartments, cars, and restaurant meals sends the message that you'll keep paying for a lifestyle they can't afford on their own—and you probably can't or don't want to fund forever," he says. "Better to teach them to burn less than they earn, and save all you need for a long old age."

Too Much Hand-Holding

Percentage of middle-age Americans supporting an adult child

31%

Portion of parents paying

Transportation costs
41%

Medical expenses
28%

Student loan debt
24%

Rent
13%

Other bills
59%

ILLUSTRATIONS BY 731; GOLF COURSE: JOHN LIND; DATA: JULY 2014 SURVEY BY THE AMERICAN CONSUMER CREDIT COUNSELING

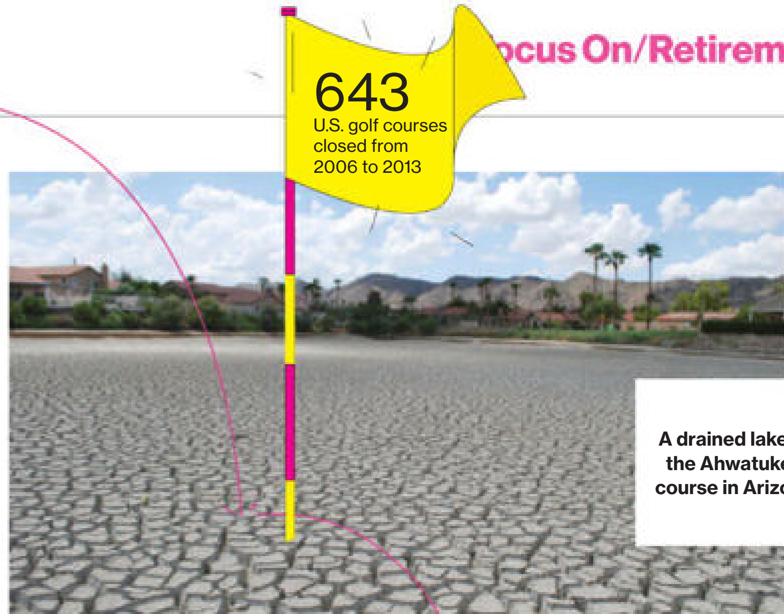
Egan has began practicing a little of the tough love Sweeney preaches. She recently began charging her son $150 a month for rent, and he now pays for his cell phone and car insurance.
—*Carol Hymowitz*

The bottom line More than a third of millennials receive regular support from a parent, according to a 2014 survey.

Real Estate

A Sign Housing Is Back: Fairways Gone to Seed

- ▶ Residents and developers battle over shuttered golf courses
- ▶ "A lot of the stuff he did just to antagonize us"



A drained lake at the Ahwatukee course in Arizona

U.S. real estate developers bet big on golf communities in the 1990s and the 2000s, prompting a building boom that crashed along with the rest of the housing market. Now with sales rebounding, some are shutting down unprofitable greens to develop the land for new homes. It's not as easy as plowing under a fairway. To overcome obstacles such as zoning laws, deed restrictions, and opposition from local residents, some owners are letting courses go to seed.

Although the tactic isn't new, "it's happening more and more with the resurgence in the residential market," says real estate attorney Cliff Schulman. About a decade ago, he helped the owners of the Williams Island Country Club in Miami-Dade County, Fla., rezone their property and sell it to a homebuilder. Residents of nearby condominiums opposed the plan at first. Then Schulman's client closed the course. "After a few months, their lovely golf course was overgrowing. It started with raccoons, and snakes, and reptiles, and other stuff," he says. "The neighbors came back and said we need to talk."

A similar struggle is playing out over the fate of the Ahwatukee Lakes Golf Course, 10 miles south of downtown Phoenix. In 2008, Ben Holt paid $365,000 for a four-bedroom ranch house in a community that adjoins the course, thinking he'd be getting patio views of the 12th tee. Instead, says the retired high-school teacher, the owner turned the course into an eyesore, figuring the blighted fairway would move residents to approve a residential development to be built by **PulteGroup**.

Wilson Gee, chief executive officer of **RMJ Property** in Pasadena, Calif., which owns Ahwatukee, first floated a plan to redevelop the course in 2008 but failed to get residents to waive deed restrictions. (Approval of at least 51 percent of about 5,200 property owners is required to alter the covenants laid out by the homeowners association.) Gee then erected a barbed-wire fence around the property and drained the artificial lakes. Last year he signed a contract with Pulte, which canvassed residents to sign waivers so it could build more than 250 homes. Rumors swirled that if the Pulte deal fell through, Ahwatukee Lakes might be turned into a cemetery or a Walmart. "A lot of the stuff he did just to antagonize us and try to break our spirits," says Holt.

Pulte walked away from the deal in November 2014. Spokesman Jacque Petroulakis says Pulte was "unable to come to final terms with the seller." Gee says he closed the course because it was losing money, and he'll find another use for the land.

Developers built more than 3,000 courses in the U.S. from 1990 to 2003, according to the National Golf Foundation. The builders weren't interested in greens fees. They wanted the courses as amenities for housing developments, many of them pitched at retirees. When the economy collapsed, so did interest in golf; 643 courses closed from 2006 to 2013. In Myrtle Beach, S.C., copperheads and a methamphetamine lab are among the new residents of shuttered fairways. In central Florida, authorities in Seminole County passed a law requiring owners of closed courses to keep cutting the grass lest they diminish the value of neighboring houses.

A closed or struggling golf course is often the largest tract of undeveloped land for miles around, making it attractive to homebuilders. Golfers in Reston, Va., and Corvalis, Ore., are watching anxiously as course owners outline rezoning plans.

To avoid a protracted fight, owners of some closed courses have opted to sell their land to local parks departments ▶

or take the tax benefit from donating it to a nature trust. Another option is to make the course smaller, freeing up land for residential development, says Erik Larsen, a golf course architect in Ponte Vedra Beach, Fla. "The real low-hanging fruit are the courses with more than 18 holes," he says. —*Patrick Clark*

The bottom line Some owners are leaving golf courses untended as a strategy to win community support for redevelopment.

Social Security

Countries Backtrack on Privatizing Retirement

▶ Some governments raid private accounts in times of need

▶ "It was highway robbery, the strong taking from the weak"

When Poland introduced private retirement accounts in 1999, the government gave its blessing to a $100 million ad campaign explaining why workers were required to contribute. Privately managed savings accounts would assure a comfortable retirement, the pitch went, while giving a boost to Polish capital markets and taking pressure off the underfunded state social security system.

Last year, the Polish government seized more than half the assets held in the individual accounts, telling workers that the state social security system would pay their benefits when they retired. "It was highway robbery, the strong taking from the weak," fumes Marcin Jaworski, a 34-year-old tax consultant in Warsaw. "I expect the public pension system to go bust," he says.

Poland is among 11 countries that have recently rolled back or abandoned efforts to privatize their retirement systems. The latest to backtrack was Bolivia, where President Evo Morales in mid-January nationalized $10.2 billion held in individual retirement accounts.

Starting in the 1980s, more than 30 nations in Latin America and the former Soviet bloc overhauled their retirement systems to create individual savings accounts. Unlike the U.S., where private retirement accounts such as 401(k)s are optional, most of these countries required workers to contribute a minimum percentage of their pay. The privatization, strongly encouraged by the World Bank and the International Monetary Fund, reflected what was seen as an urgent need to backstop traditional government retirement systems in which benefits are paid by contributions from people still working. These so-called pay-as-you-go schemes face funding shortfalls in many countries, including the U.S.

But the problem is especially acute in countries such as Poland where birthrates have declined or many young people work abroad.

Privatization was supposed to "provide greater financial stability and make pensions less prone to political interference," says Stephen Kay, an economist at the Federal Reserve Bank of Atlanta. So far, it appears to have achieved neither goal.

What went wrong? In some places, such as Bolivia and Peru, private pensions never took hold because a majority of the labor force works off the books. "If you put in a system that doesn't touch 90 percent of the population, what good is that?" asks Tapen Sinha, a professor at Mexico City's ITAM who studies pension policies. Even Chile—which in 1981 became the first country in the world to replace its state-run retirement system with privately managed personal retirement accounts—reintroduced some public benefits in 2008.

Another problem: In some countries, returns on individual retirement accounts fell far below expectations. In Poland, the government took private fund managers to task for charging high managing fees and barred them from advertising to attract new business. But authorities were partly to blame, because they required that private retirement savings be invested only in Polish stocks and bonds, says Maciej Bitner, chief economist at the Warsaw Institute for Economic Studies. And building a nest egg takes time. Bitner says the average benefit collected by a Polish worker who began putting money into a private plan 15 years ago is 80 zlotys ($22) per month, compared with an average 2,000 zlotys a month under the traditional system, which remains in place alongside private accounts.

Some governments couldn't resist the temptation to dip into the growing pool of private savings when national budgets were under strain. Hungary and Argentina canceled their private

Trial and Error

Four countries that introduced individual retirement accounts and how they fared

The government says it acted to protect pensioners from market volatility

Chile
Year established: 1981
Status: The first all-private retirement system was revamped in 2008 to reintroduce state-paid benefits
$162b Under private management

Argentina
Year established: 1994
Status: Private system was liquidated in 2008, with the government expropriating $24 billion in assets
$0 Under private management

Hungary
Year established: 1997
Status: Since 2012 the government has seized almost all of the $13 billion previously held in private savings plans
$778m Under private management

Slovakia
Year established: 2005
Status: Government cut the rate of mandatory contributions to private plans in 2012 and is letting workers opt out
$7.4b Under private management

PHOTO ILLUSTRATION BY 731; PHOTOS FROM LEFT: COURTESY YMCA; MIKE STAUGAITIS/AP PHOTO; KUPICOO/GETTY IMAGES

schemes and poured the money into state coffers. Poland said it seized $42 billion held by private fund managers to pay debts the government accumulated to shore up the public social security system.

ITAM's Sinha expects other countries to join the retreat. Mexico introduced private retirement accounts in 1997. Only about one-third of workers participate, and benefits from private accounts are likely to be far lower than forecast, he says. That will create "tremendous political pressure" to increase benefits under the public-financed retirement system, which may cause it to go bust within 15 years. —*Carol Matlack, with Maciej Onoszko*

The bottom line At least 11 countries have scaled back or scrapped their systems of privately managed retirement accounts.

Health

Never Too Old To Sweat

▶ A devotion to exercise sets today's retirees apart from their parents

▶ "This is the healthiest generation of older adults ever"

Bob Hemm, a 93-year-old retired chemical engineer, still drives his Mercury Milan and tutors fourth-graders in reading and math at a school near his home in Springfield, Va. Four years ago, at the cusp of 90, the widower remarried. Where does all of his energy come from? Exercise, says Hemm, specifically a three-times-a-week aerobics class, one that he occasionally leads. "I'm going to do it as long as I can," he says. "I figure that's what's keeping me alive."

Science suggests he's right. Exercise has been proven to help the heart, strengthen bones and the brain, and improve mood and balance. A half-hour a day of physical activity, even in 10-minute increments, boosts life expectancy by almost four years, according to a 2012 National Cancer Institute study of 650,000 people. "Exercise is the only thing—and you should underline that—that helps everything associated with aging," says Dr. Janice Schwartz, a professor of medicine at the University of California at San Francisco. "And anyone can do it."

The proportion of Americans 65 and older doing aerobic exercise or strength training was 41.6 percent in 2012, compared with 29 percent 14 years earlier, according to the National Center for Health Statistics. Of this group, who number an estimated 43.1 million, baby boomers are the most fit. They lived through the opening of the original Gold's Gym in Venice Beach, Calif., in 1965, the running craze sparked by American marathoner Frank Shorter's Olympic gold medal win in 1972, and the release of Jane Fonda's best-selling workout video in 1982.

At the YMCA of the USA—which has 22 million members at 2,700 branches across the country—people 65 and older are the fastest-growing group. In the past three years, that slice increased 34 percent, to 1.9 million members. "This is the healthiest generation of older adults ever," says Cindy McDermott, national director of membership. "They may have taken time out to raise their children, but they remember when they were working out, and they can envision that life again." The YMCA has a program called Press Play aimed at those who may have paused exercise to start a family or establish a career and now are ready to resume. It's also rolling out 55-and-older classes in basketball, tennis, and other sports.

The older-skewing demographic is an emerging trend in the fitness industry, says Tom Manella, vice president for training at Life Time Fitness, which has 113 sports clubs in the U.S. and Canada. "Many of these folks are in better shape than when they were 30 years old," he says. More people age 60 and older are signing up for Ironman triathlons and powerlifting competitions. But as Manella points out, the benefits of exercise start to accrue with even mild exertion. His clubs offer water aerobics, weightlifting, group exercise classes of various intensity, and more. "When you are that age, you need to work smarter, not necessarily harder," he says.

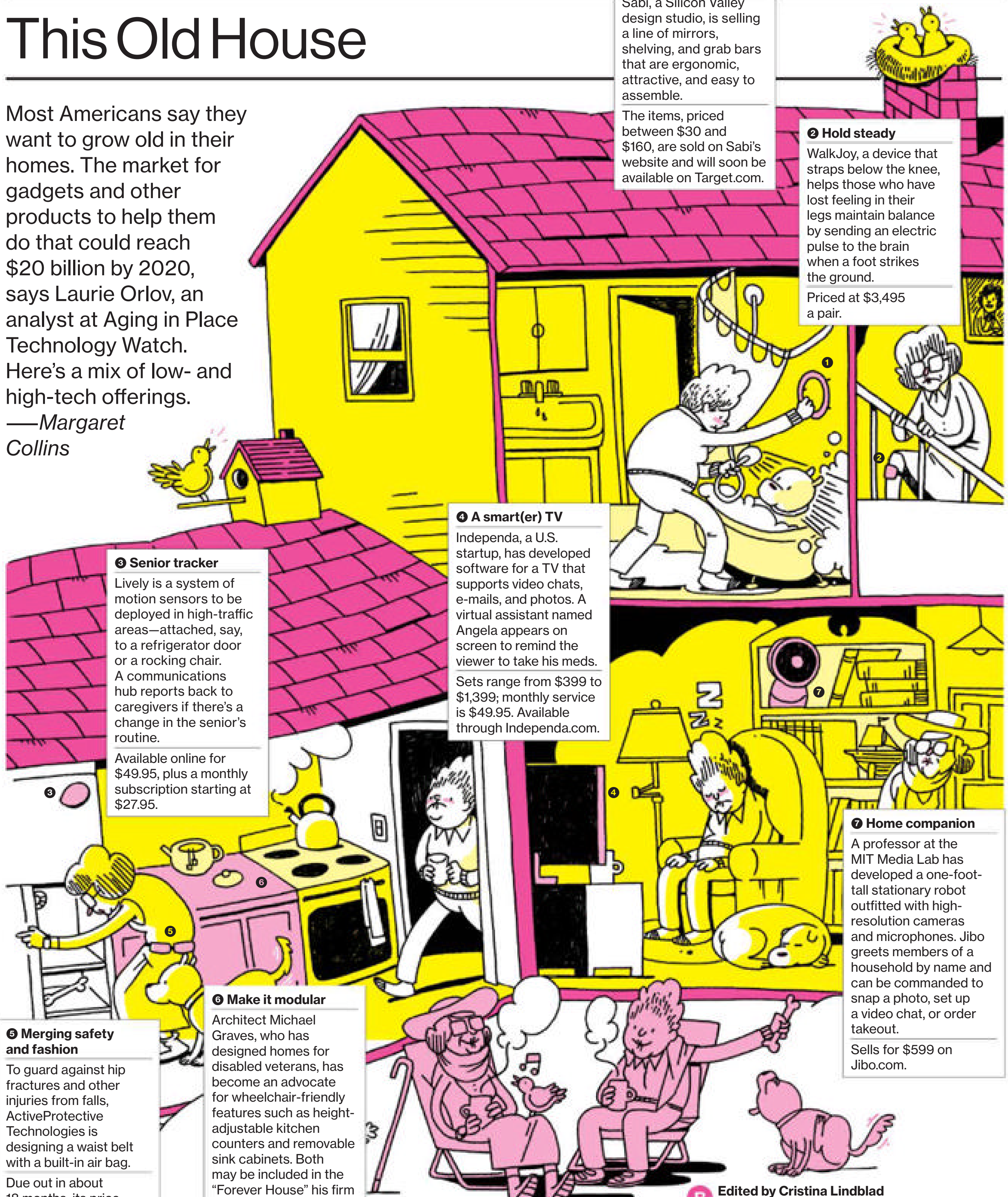
> "Exercise is the only thing—and you should underline that—that helps everything associated with aging." —*Dr. Janice Schwartz*

Hemm's aerobics class, which meets in the basement of a local Methodist church and costs $1 a day, is a mixture of stretching, marching, side steps, and kicks set to music, with balance, strength, and flexibility exercises thrown in. He says his favorite is when someone breaks out a polka or a jitterbug, and the class morphs into a dance. "I'm not moving quite as fast as I used to," he says, "but I'm still moving." —*Michelle Fay Cortez*

The bottom line The YMCA has experienced a 34 percent increase in members 65 and older in the past three years.

Design This Old House

Most Americans say they want to grow old in their homes. The market for gadgets and other products to help them do that could reach $20 billion by 2020, says Laurie Orlov, an analyst at Aging in Place Technology Watch. Here's a mix of low- and high-tech offerings.
——*Margaret Collins*



❶ A safer bathroom

Sabi, a Silicon Valley design studio, is selling a line of mirrors, shelving, and grab bars that are ergonomic, attractive, and easy to assemble.

The items, priced between $30 and $160, are sold on Sabi's website and will soon be available on Target.com.

❷ Hold steady

WalkJoy, a device that straps below the knee, helps those who have lost feeling in their legs maintain balance by sending an electric pulse to the brain when a foot strikes the ground.

Priced at $3,495 a pair.

❸ Senior tracker

Lively is a system of motion sensors to be deployed in high-traffic areas—attached, say, to a refrigerator door or a rocking chair. A communications hub reports back to caregivers if there's a change in the senior's routine.

Available online for $49.95, plus a monthly subscription starting at $27.95.

❹ A smart(er) TV

Independa, a U.S. startup, has developed software for a TV that supports video chats, e-mails, and photos. A virtual assistant named Angela appears on screen to remind the viewer to take his meds.

Sets range from $399 to $1,399; monthly service is $49.95. Available through Independa.com.

❺ Merging safety and fashion

To guard against hip fractures and other injuries from falls, ActiveProtective Technologies is designing a waist belt with a built-in air bag.

Due out in about 18 months, its price isn't available.

❻ Make it modular

Architect Michael Graves, who has designed homes for disabled veterans, has become an advocate for wheelchair-friendly features such as height-adjustable kitchen counters and removable sink cabinets. Both may be included in the "Forever House" his firm is building for a boomer couple in Minnesota.

Price not available.

❼ Home companion

A professor at the MIT Media Lab has developed a one-foot-tall stationary robot outfitted with high-resolution cameras and microphones. Jibo greets members of a household by name and can be commanded to snap a photo, set up a video chat, or order takeout.

Sells for $599 on Jibo.com.

Edited by Cristina Lindblad
Bloomberg.com

ILLUSTRATION BY DOROTHY GAMBRELL

By

Brett Forrest

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Guy Martin

The American Woman Who Stands Between Putin And Ukraine

Ukraine is a nation at war,

which is why Natalie Jaresko, the minister of finance, has traveled 20 miles from Kiev to the town of Irpin, a settlement of 40,000 on the edge of a pine forest. She's here to visit a rearguard army hospital and to console convalescing veterans of recent battles against Russian forces and their proxies in the Ukrainian east. "Where did you serve?" she asks, moving slowly from room to room. "How were you wounded?" She may be from Chicago's West Side, but she speaks Ukrainian fluently, and if anyone notices her American accent, no one seems to care. Jaresko tells the soldiers they're heroes, the country's national accountant handling a job for generals. The crisis has thrust people into unlikely roles.

Three months ago, Jaresko, 49, left the private equity firm that she co-founded in Ukraine in 2006 to join the government of Petro Poroshenko. A billionaire chocolate and confectionery magnate, he was elected president after the uprising known as the Euromaidan Revolution. At the time, Jaresko didn't even have Ukrainian citizenship. Now, as the country's top economic official, she's Ukraine's liaison to the World Bank, the International Monetary Fund, and the European Bank for Reconstruction and Development. Tax reform is hers. So is the treasury. She must construct a national budget out of lint. "I can't wait for the situation to be perfect," Jaresko says.

A little less than a year since Poroshenko took office, the world's attention has focused largely on the fighting in eastern Ukraine. It's a conflict that began in February 2014, days after President Viktor Yanukovych fled Ukraine in the wake of the Euromaidan protests. The war has since killed roughly 6,000.

Yet whether Ukraine succeeds as an independent democratic nation arguably depends as much on the efforts of Jaresko and her colleagues as it does on the military battles. Together they must rebuild a shattered economy and restore international confidence in Ukraine while confronting the corruption and cronyism that have haunted the country since the fall of communism. And they must somehow do so as state-owned banks teeter on the brink of collapse, the national treasury counts its last foreign notes, and inflation is at 28 percent and rising. One day last month, within a few hours, the local currency, the hryvnia, lost a third of its value. The longer the war carries on and reforms are delayed, the more hostile Ukrainians will become to their government and its Western supporters, leaving the country even more vulnerable to Vladimir Putin.

Jaresko, 5 feet 6 inches tall, wears her dark hair at chin length. As she continues through the Irpin hospital, she's solemn, respectful. More soldiers receive her, cramped two and three to closet-like rooms, jammed into beds sized for children. They discuss their lack of firepower in the field: Why don't we have modern weapons? How does the enemy know where we are all the time? Jaresko listens. She knows better than any general that Ukraine doesn't have the funds to better arm itself.

She asks the soldiers what they plan to do once they've recovered. To a man, they say they'll return to the front lines. Jaresko's business until now has been figures, not soldiers or sentiment. Carrying this new burden, she walks the parquet floor of the hospital's dark, old Soviet hallway. There are tears. She blinks them away. This sure is something she's gotten herself into.

Jaresko's father, Ivan, was born in 1932 in Poltava, 200 miles east of Kiev. During World War II, he was deported with his family to a Nazi camp inside Germany. After the war, he immigrated to Chicago, where he met Jaresko's mother, Maria, another Ukrainian refugee. They raised three children in lower-middle-class Wood Dale, 20 miles northwest of the city whose skyscrapers symbolized the ambition and opportunity of their adopted homeland.

"It's the typical story of a family that goes through Ellis Island," Jaresko recalls in mid-February at Ukraine's Cabinet of Ministers building, a Soviet-era structure of drafty imperiousness in central Kiev. It's evening, and we're sitting at the head of an oval conference table. "The United States offers that opportunity, freedom, the ability to dream—especially in that '50s, post-World War II period," she says. Jaresko spent childhood weekends at Ukrainian school and church, but her family spoke English at home. "My father really wanted us to integrate into American society," she says. "He was very careful to avoid politics. The post-McCarthy era convinced my father that we had to become middle-class Americans."

Jaresko majored in accounting at DePaul University, then picked up a master's in public policy at Harvard's Kennedy School in 1989. Her father wasn't impressed. "He very much believed in only the private sector," she says. "Government,

for him because of his background, was something you wanted to avoid." After the Kennedy School, Jaresko took a job on the economic desk of the Department of State's office of Soviet affairs. When the Soviet Union collapsed, she went to Kiev in 1992, one of eight diplomats charged with opening the U.S. embassy there. She's lived in Ukraine ever since. "My father couldn't understand what happened, what went wrong," she says. "He came to the land of milk and honey, and here I was, attracted back to the other."

Jaresko could see firsthand that there would be no easy path for Ukraine to follow in its transition to a market economy. Criminal posturing was the national style. All the same, she recognized the opportunities that existed in a country that was rapidly privatizing its state-owned assets. She left her diplomatic post and joined the Western NIS Enterprise Fund, an organization backed by the U.S. Agency for International Development and designed to kick-start small and midsize Ukrainian businesses.

In the mid-1990s, Ukraine endured hyperinflation of 10,000 percent. A few years later came the shock waves of Russia's financial crisis. The Ukrainian economy showed its first signs of growth only in 2000, after almost a decade of decline. Then, in 2004, came the Orange Revolution. While the country entered a new period of uncertainty, international institutional investors began to arrive. Two years later, Jaresko and three partners opened investment management firm Horizon Capital. It managed the Western NIS Enterprise Fund and eventually raised two more. When she left last December, it had roughly $600 million of Ukrainian investments under management. (Jaresko and her husband, Ihor Figlus, divorced in 2011. He's returned to the U.S. Their two school-age children live in Kiev with Jaresko.)

Last year's regime change, Jaresko says, represented a real turning point—a chance to finally end kleptocratic rule. "Anyone close to Ukraine understood that this was an incredible moment to take Ukraine forward in a way that it hadn't gone quickly enough over the past 22 years," she says. "That there had been a radical change in civil society, and that civil society's expectations could no longer be put on the back burner by anyone."

"I have no other reason to do this, other than to make a difference. Ukraine must succeed"

Ten months later, representatives from a headhunting firm hired by the new government, WE Partners, visited Jaresko at the Horizon Capital offices. They discussed candidates for various government posts before asking her if she would be willing to serve. Her first response: "I have a job." Still, she agreed to meet with Poroshenko and his prime minister, Arseniy Yatsenyuk. "They played hard on my patriotism. We found a common vision of what we thought we needed to do in terms of the reforms, the business climate, the international financial institutions, our bilateral relationships. I was able to raise money for this country during difficult times. I was able to convince investors who had never invested here before, institutional investors. We convinced them of how, despite all the challenges, there was a way to be successful and profitable in Ukraine in a transparent fashion. I think the president and prime minister wanted me to bring that experience." In a little over a week, she accepted the job as finance minister. "I sometimes wonder what my father would think," she says.

Jaresko's appointment, especially considering Horizon Capital's ongoing relationship with USAID, provides fuel to conspiracy theorists, who depict Euromaidan as a Western plot aimed at luring Ukraine out of Russia's sphere of influence. The new

A recent protest organized by miners in front of the parliament in Kiev

finance minister is hardly the only target for the conspiracy-minded. Jaresko joins two other foreigners in Ukraine's cabinet: Aivaras Abromavicius, a 39-year-old Lithuanian, is the minister of economy and trade. The minister of health care, Alexander Kvitashvili, a Georgian, served in the same capacity in his home government.

No matter their origin, these ministers—and the numerous Poles, Germans, Canadians, and other foreigners who've joined the government in senior and midlevel positions—are pulling the same oar. Jaresko is no longer a foreign national, President Poroshenko having granted her the citizenship necessary to serve. "I've always been a Ukrainian," she says. "Now I'm a Ukrainian citizen." By local statute, she's prohibited from holding two passports, though she has a couple of years to relinquish her American one. It's hard to imagine she'll stay in the job that long, considering her government salary of 10,000 hryvnia per month, or about $300. "I'm doing this out of a sense of patriotism," she says. "I have no other reason to do this, other than to make a difference. Ukraine must succeed. There is no room for any of us to fail."

-21%
Decline in industrial production in January 2015 from the previous year

-69%
Drop in value of the hryvnia against the U.S. dollar since Jan. 1, 2014

8.9%
Average jobless rate of 15- to 70-year-olds from January to September 2014

One morning last month, a modest crowd of journalists and television cameramen gathered in a fourth-floor ballroom inside the National Bank of Ukraine. Built in 1905, the Italian Renaissance-style building's ornate solidity shields interior troubles. Largely because of Russia's military intervention, Prime Minister Yatsenyuk has said, Ukraine has lost 20 percent of its economy in the last year. Jaresko has also said that Yanukovych left the country $40 billion in debt. Ukraine's international reserves have fallen from $204 billion to less than $7 billion. From a sustainable 8 hryvnia per dollar before Euromaidan, the hryvnia slipped to an all-time low of 32.5 per dollar on Feb. 25, when the central bank suspended trading of the currency for three days. The news came when the country was preparing to restructure its sovereign debt. It was like spinning plates on a high wire during an earthquake.

Today, however, is a day for more positive news. Sitting at the middle of an oak conference table, Jaresko announces that the IMF has pledged $17.5 billion to Ukraine over the next four years. "This will return confidence to our economy," she says. "It also unlocks bilateral and multilateral support for Ukraine at this difficult time." The U.S. has guaranteed $2 billion in Eurobonds. The European Union has pledged a loan of €2.2 billion. Germany, Japan, and Canada have also promised to contribute, each in amounts south of $1 billion. The IMF deal, a year in the making, is essential for Ukraine. But the funding will work only if it enters a system in the process of radical reform.

Campaigning for the presidency, Poroshenko pledged to divest himself of Roshen, the confectionery that made him a billionaire. However, he continues to own a majority of Roshen, along with interests in at least 10 other companies. The dirty, open secret behind his facade of reform is that oligarchs have only gained in influence since Euromaidan. Oligarchs control media. They stock the seats of the parliament. The state—fighting Russia, fighting for its financial life—is too weak to fight its own power structure. In a recent poll conducted by the Kiev-based Research & Branding Group, a marketing consulting company, 46 percent of respondents disapproved of Poroshenko's performance as president.

There have been some encouraging signs. Early last month, Ukraine initiated an electronic system for filing corporate taxes. The process is meant to eliminate roughly $1 billion a year in tax fraud. Value-added tax fraud is another major source of corruption, blamed for a loss to the national budget of 25 percent. The system is in the middle of an overhaul. At the same time, it's hard to find anyone of stature in Ukraine whose past is unimpeachable. Reform of the judiciary has so far fallen short. Neither the president nor parliament has demonstrated willingness to relinquish influence on the courts.

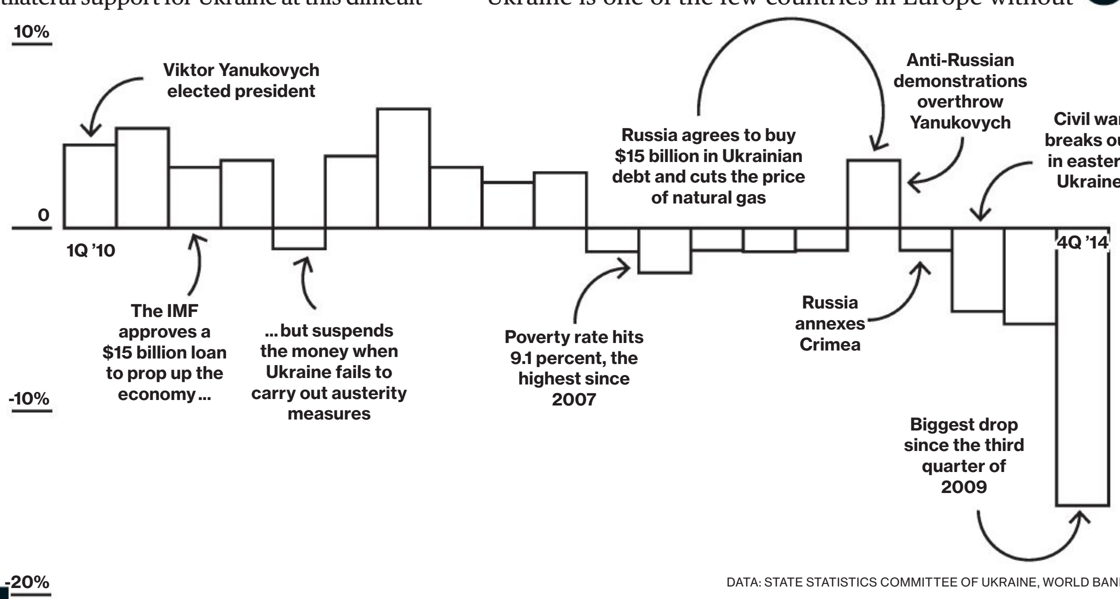
These are just a few of the 60-odd major reforms discussed at the semiweekly meetings of the new National Reform Council comprising Poroshenko, his ministers, the head of the national bank, parliamentary leaders, and prominent members of civil society. Coordinating the effort is Dmytro Shymkiv, the deputy head of the presidential administration and former chief executive officer of Microsoft Ukraine. Half of his new employees had never sent an e-mail. A third had never used a computer. Paperwork, with the many signatures and stamps needed to approve a land deal or a building permit, was the mechanism of corruption. Grasping this, Shymkiv understood the depth of his challenge.

"There are a lot of questions, and for 20 years no one was looking at them," he says. "We have to build a system that can be sustainable. It's not sustainable now. Every day we need to create something that can't be rolled back." That's the reason, he stresses, why Poroshenko, a former executive himself, has made a point of engaging Ukraine's business community. "Some results will be slow," Shymkiv says. "But we've seen how quickly things can change in business. We are very results-driven."

Ukraine is one of the few countries in Europe without

Jaresko Has Her Work Cut Out for Her

□ Change in Ukraine's gross domestic product from the prior year



DATA: STATE STATISTICS COMMITTEE OF UKRAINE, WORLD BANK


Bloomberg Businessweek Design 2015
Speakers include:
Ayah Bdeir
littleBits
Michael Bierut
Pentagram
Tim Brown
IDEO
Robert Brunner
Ammunition
Alon Cohen & Adi Tatarko
Houzz
Steve Cousins
Savioke
Nicole Dosso
Skidmore Owings & Merrill
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www.bloombergbusinessweekdesign.com
April 28
Yerba Buena Center
San Francisco

Jaresko during her visit to a military hospital in Irpin

a 3G network because of an oligarchic shell game played out under the Yanukovych regime. The Poroshenko government recently completed a transparent sale of 3G licenses to several telecom companies, which will inject a total of almost $300 million into state coffers. Ukraine can celebrate building 3G—while the rest of the industrialized world is planning 5G. This is where Ukraine is today, caught between idealism and despair. The reforms that have come have been so slow that, to some, reform can seem a joke.

"We have veterans of deregulation in this country," says Abromavicius, the economics minister. He sits in his office among the modern sculptures and prints he transplanted to liven up this former apparatchik's den. A section of his ministry, the State Statistics Department, employs 10,450 people. Such numbers are emblematic of across-the-board waste, and they make a fine target. "There's a high demand from business and society to attack this," Abromavicius says. "It's a new generation of people in power. They mean business, and they need other people who mean business. It would be sad to waste this crisis and not make reforms."

Abromavicius says his office projects a 5.5 percent reduction in the economy this year. That doesn't take into account Putin's future actions in the east. "We work under the assumption that there will be peace very soon," he says. "This conflict is misguided. The Russian leadership is misguided about Ukraine in general. They just don't understand Ukraine. This country wants to be left alone. This country wants to make its own decisions."

On a suitably cold February evening, I move across the apron of Kiev's 11th century St. Sophia Cathedral and toward the Hyatt hotel. Gathered in the hotel's eighth-floor bar are some of the most wing-and-a-prayer investors in Eastern Europe. The occasion is the 11th annual investor conference hosted by Dragon Capital, a leading Ukrainian investment bank. Among the few dozen people in attendance are overworked functionaries from the mayor's office and a dour man representing a group of Chinese investors displeased with their inability to pull money from the market. Despite some sad souls, the spirit of adventure is alive in the room, especially among those accustomed to the special charm of the post-Soviet world's enduring volatility.

Genna Lozovsky, a director at Sandglass Capital Management, an emerging- and frontier-markets fund based in New York, has come to identify opportunities in Ukraine's debt restructuring. Like many investors, he last year reduced his fund's Ukraine portfolio. "We believed that there were serious tail risks to investing in Ukraine," he says. Lozovsky's focusing now on exporters that can generate their own foreign-currency cash flow while benefiting from the devaluation of the hryvnia. He gestures at his fellow investors at the bar. "You gotta have big balls to be in this room," he says. "What is it they say? There's no bad asset, only a bad price."

As the young government's leaders and supporters tirelessly point out, the war with Russia has so far been contained to less than 10 percent of Ukraine's territory. Even so, international investors won't return to this marketplace in normal numbers until peace comes to all of Ukraine. "This is what differentiates Ukraine from a more classical distressed investment environment," Lozovsky says.

A little later, Michael Maltzoff hands me a business card from Petro Partners that has an address in Houston. Descended from a line of White Russians, Maltzoff started investing in Ukraine in 1995 with the East Europe Development Fund. Toward the end of Yanukovych's time as president, Ukraine's "unabated gangster capitalism," as Maltzoff calls it, drove him out. He spent the last couple of years investing in Texas shale. Now he's back, trying to figure out whom to believe. Maltzoff cautions me to keep an eye on Ukraine's state-owned banks, which, he says, are likely to fail any day. "Another thing that people aren't talking about is the fact that the president and prime minister can't stand one another," he says. I'd heard just the opposite from equally convincing sources. All the same, Maltzoff says, "I'm bullish. My experience has been that recovery happens much faster than we think. I give it a year. A year of restructuring and pain, and then the clear signs of the shoots of economic growth come the spring of 2016. I think history will show that we needed this severe shock to really break the old system."

As the drinks go around, it's difficult to tell if the enthusiasm in the room, such as it is, is genuine or simply part of the salesmanship of the investment game. While major international institutions may see an opportunity to do some social good, others clearly have survival squarely in mind.

The following day, I meet Simon Cherniavsky outside the Hyatt ballroom. A dual U.S. and U.K. citizen, he was chief executive officer of HarvEast, the agriculture company owned by Rinat Akhmetov, the wealthiest man in Ukraine. Akhmetov's holding company, System Capital Management, is based in Donetsk, the site of the fiercest fighting. Cherniavsky says he's left HarvEast: "I got tired of being thrown into ditches at checkpoints." He recently took over as head of Mriya Agro Holding, a wheat and potato grower that's drowning in $1.3 billion of debt. "We don't know what we have yet," Cherniavsky says. "There's a real possibility we can't turn this around." And if he can't turn Mriya around, it will be a signal setback for a sector that accounts for 25 percent of Ukrainian exports. Cherniavsky has worked in Ukraine for five years, but recent events have painted a stark picture. "I was in D.C. for three weeks over Christmas with my family," he says. "We said, 'This is really nice.'"

As I make my way into the ballroom, the Dragon conference gets under way, and I remember something that Jaresko told me in her office. "I don't ignore the problems in this country," she said. "But I can separate the problems from the opportunities."

Jaresko is onstage, sitting beneath a chandelier, looking out at her former colleagues, now her constituency. She's energetic as she speaks, jaunty even. "No one is fooling themselves about the complexity of the challenges we face," she says. "I ask you to step back from the brink. I do believe."

"I ask you to step back from the brink. I do believe"

Is it real? Or is it that old fund manager salesmanship so familiar to everyone in the room? At one point, Jaresko gets ahead of herself, saying that Ukraine will show that it is "a good creditor."

"Did I say good creditor?" she says with a smile. A titter ripples through the crowd. "A good borrower," Jaresko says, amending her remarks. "The day will come when we're a good creditor. One step at a time." Ⓑ

ONE NERD TO R

one app to find them, and a million dollars of in-app purchas


By Robert Kolker
Illustrations by Jimmy Giegerich
ULE THEM ALL,
es every day to bring them all and in the darkness bind them

For Gabriel Leydon, the Super Bowl was a showdown. But it wasn't between the Seahawks and the Patriots. It was between the game he developed, Game of War: Fire Age, and its better known competitor, Clash of Clans. Consistently in the top five apps worldwide by revenue, Game of War has been grossing more than $1 million a day, according to Think Gaming, double what it was bringing in just last spring.

But even at that rate, Game of War has persistently trailed Supercell's Clash of Clans. And so on that Sunday in early February, the two games did battle via media buys. Both were armed. Clash of Clans brought a rapier: Liam Neeson, with a witty, irony-laden riff on a dude addicted to his fantasy duels. Leydon brought a nuclear bomb: Kate Upton. She emerged from some kind of medieval hot tub, and, donning body armor in slow motion, plunged into a melee of monsters and knights.

Critics mocked Upton's performance, naturally, but in the real world, Game of War trounced its enemy. In the hours after the Super Bowl, the mobile game, for a few hours at least, passed its rival, as measured by rankings from Apple's App Store. Which is exactly what Leydon had hoped for when the company he founded and runs, Machine Zone, spent $40 million on a four-month campaign with Upton as their spokeswoman.

Fundraising talks valued Machine Zone at more than

$3b

Together, with a third game, UCool's Heroes Charge, which also bought air time, the Super Bowl was a coming-out party for multiplayer games for iOS and Android phones. Unlike the games played on consoles such as Sony's Playstation or Microsoft's Xbox, mobile games can seem pretty downmarket, with cheap-looking graphics and no immersive storyline. They are, however, beginning to dominate the entertainment market.

In Clash of Clans and virtually every other multiplayer mobile game, the contests and battles are one-on-one. But in Game of War, the combat is worldwide and simultaneous. The goddess Athena cheers on from the sidelines as players build cities, amass armies, and strike up alliances with other players, all of whom interact on a large map of kingdoms and battles.

The competition drives the purchase of virtual currency inside the game, giving players the ability to build things faster, making them more attractive candidates for alliances. And it's those alliances—and the ability to play not just with dozens but thousands of people all over the world in real time—that gives Game of War devotees a special little rush.

Such purchases are the nub of the "free-to-play" business, in which games are given away in the hopes that a few devotees who'll pay to win will subsidize the whole enterprise. Like high rollers at casinos, these players are known as "whales." In one case, *Het Nieuwsblad* in Belgium reported last year, a 15-year-old Game of War player from Antwerp spent €37,000 ($41,400) on in-app purchases on his mother's credit card.

$40m

Amount Machine Zone spent on an ad campaign for Game of War

Those in-app purchases explain the revenue of $1 million or more each day. Last summer, the *Wall Street Journal* wrote that Machine Zone was expecting to bring in more than $600 million in 2014, a number Leydon won't confirm or deny. The same article stated that he was in talks with JPMorgan Chase about fundraising at a valuation of more than $3 billion, which would match the $3 billion valuation Supercell reached with funding from Japan's SoftBank.

"Culturally, it's shocking to people," Leydon says. "They say it's just an app game. They don't understand the scale of what's happening here in the industry, because it's kind of a sea change." Indeed, those who play primarily on their phones make up 29 percent of the overall gaming audience, more than three times the size of the group that are considered hardcore console gamers, according to a marketing study released last spring by the NPD Group. Console and software sales, meanwhile, have dropped every year since 2008, says Michael Pachter, a gaming analyst at Wedbush Securities.

In Leydon's view, Upton vs. Neeson was just the first bout. "Next Super Bowl," he says, "you might see 10 ads."

Machine Zone has 300 employees, most of them in Palo Alto. Seated at a long conference table, Leydon, 35, looks cheerful if a little haggard, riding on three hours of sleep, working a heavy layer of stubble, and wearing the usual Zuckerberg-style hoodie. The office is the size of a warehouse, and in one dimly lit alcove, Leydon has stashed a relic from his past. It's a coin-operated single-shooter arcade game from 2007 called America's Army. Leydon grew up in Silicon Valley, spending whatever time he wasn't on a skateboard at video arcades. After a detour through sound-engineering school, he got his start designing games for Atari, Tsunami Visual Technologies, and others.

America's Army was a stripped-down shoot'em-up adaptation of software the U.S. Army had been marketing as a recruitment tool. Leydon spent a year and a half developing it for arcade-game maker Global VR. Shortly before he was done, YouTube's founders sold their company for $1.65 billion. "It was amazing," he says, shaking his head. "Two young guys. They worked on it for, like, a year and a half. I was like, 'That's engineering, and what I'm doing is engineering. What's the difference between what I'm doing and what they're doing?' "

Leydon abandoned the arcade world, which was dying anyway, while holding on to one arcade-related skill set: the ability to design games that persuade players to spend money to keep on playing.

He was one of the first to see how the smartphone had the potential to be a

GAME OF WAR HAS BEEN GROSSING MORE THAN $1 MILLION A DAY

Leydon in his Palo Alto office

virtual supermarket in everyone's pocket and purse, but he had to fail a few more times before really nailing it. At the time—around 2007 and 2008—Facebook apps such as RockYou's Zombies and a Stanford team's KissMe were surging.

With his partners Mike Sherrill and Halbert Nakagawa, Leydon started a company called Addmired. "We were kind of afraid to compete on Facebook," he says. "Zynga was 300 people. We were just three people." So the company's first apps were on Myspace, among them a photo-sharing precursor to Instagram called Addable. It was popular but unprofitable; Leydon noticed how the photos were secondary to the social aspect, and the most viral part of the app was how "it turned into a chat room." But the partners were barely surviving. "We were working out of a 300-square-foot studio apartment. My co-founder's bed was right next to me, and I had a $15 chair that permanently wrecked my back."

3m

Number of people who can play Game of War simultaneously

In 2008, Addmired used a few thousand dollars of seed money from startup funder Y Combinator to begin work on what's commonly recognized as the first free-to-play app for the iPhone, a largely text-based role-playing game called iMob, which they built in three months. There was no such thing as an "in-app purchase." Instead, Leydon gave away a version, hoping enough players would get hooked and buy a paid version that unlocked virtual currency. "We finished it a month before we released it," he says, "because I thought no one would want to play it." When it was finally launched, iMob worked a little too well: Hundreds of thousands of people downloaded it. "The first day, we couldn't believe what was happening. The second day, it was shocking. The third day, nothing worked."

The system crashed. "We weren't sleeping," Leydon says. "We did everything possible to keep that game going for two or three months." All the money Addmired made went out the door, spent on contractors to prevent crashes. "We did so many things wrong, just out of ignorance for how online games work, that it kind of became a mission in the company to solve that problem, to make sure we didn't go through that again."

Leydon recognized then that the future of mobile games wasn't with fancy console-style graphics. "People were trying to put console games on the iPhone," he says. "But it's different. If your game's just about graphics, it's not going to work." Smartphones, he realized, commandeer short bursts of attention; some people check their phones a hundred times a day. "They're looking for something to do. They're trying to fill time. And they're jumping from app to app." A successful game needed to require players to make quick decisions and then not be able to resist coming back umpteen times to check on the consequences of those decisions.

The popularity of iMob and a few other apps—and the blast of revenue Addmired enjoyed after Apple's App Store opened in 2008—got Leydon noticed. The company, renamed Machine Zone in 2012, raised $13 million from Menlo Ventures, Anthos Capital, Baseline Ventures, and other sources to start developing what became Game of War: Fire Age, according to Dow Jones VentureSource. "What we're doing," he said then, "is creating a more social experience and then wrapping a game around it." It took a team of 80 people 19 months to build the app. Still stinging from what happened with iMob, Leydon wouldn't release the game until it underwent nine months of testing and five months of live beta.

To allow for the building of alliances within the game, the app needed a sophisticated chat feature. In the middle of development, Leydon decided it made sense for all players, no matter what their native tongue, to speak the same language. So he built a ➜

PHOTOGRAPH BY STIAN RASMUSSEN FOR BLOOMBERG BUSINESSWEEK

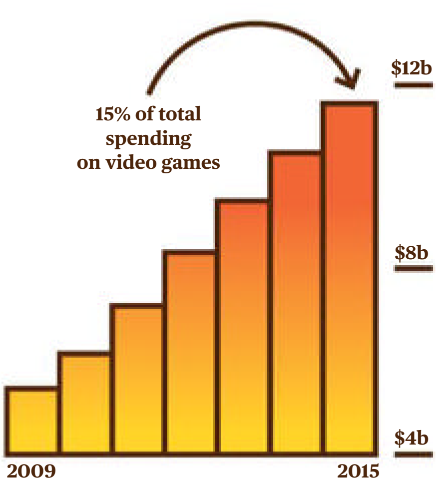
messaging platform that included a translation engine based not only on Google Translate but also on crowdsourcing. Within Game of War, text messages, comments, and push notifications are translated with about 70 percent accuracy. Log in to the game in Polish, and everything you read from other players is in Polish, too. The game's players correct any errors they notice in exchange for virtual rewards within the game. From the start, the average player corrected 10 misspellings and slang expressions per day.

Leydon says the ability to translate slang in chat is nothing compared with the game's other innovation. Game of War accommodates about 3 million users in simultaneous play, with what the company clocked as a 0.2-second response time. The closest thing remotely like it would be Eve Online, the PC-based virtual-reality environment that has its hundreds of thousands of subscribers cordoned off into separate servers called shards, which are able to keep tabs on what every player is doing at once. Because Eve maxes out at about 65,000 players per shard, Machine Zone abandoned that model altogether. "Game of War is built around a cloud kind of system," Leydon says, "where the game doesn't need to know where everyone is. It can process messages very fast, allowing synchronization to happen at very low latency speed."

That means no lag time, no language barrier, and virtually no limit on the number of people playing together.

Mobile Uprising

Global spending on mobile video game software and services



FIGURES FOR 2014 AND 2015 ARE ESTIMATES
DATA: PRICEWATERHOUSECOOPERS

"WE'RE A TECHNOLOGY COMPANY. WE'RE NOT REALLY A GAME COMPANY"

"It's closer to a social network than it is a video game," Leydon says. "Facebook has pokes and messages and things like that. In Game of War, you have attacks and friends and chats." Leydon argues that Game of War's social interplay is far more complex; among other things, Facebook interactions across language borders are limited.

"People look at ads and top grosses, and they don't look at what Game of War really is," Leydon says. "This is the largest real-time concurrent interactive application ever built. There's nothing even close to it."

Game of War is expanding along with the gaming audience that's growing the most, what the NPD Group's study calls "avid omni gamers," who play on both their tablets and their phones and are most likely to spend money on in-app purchases. The segment is up 6 percent, to a 22 percent portion of the overall audience, according to the study. From the start, Machine Zone was recording long user times in Game of War. The average player, Leydon says, plays for two hours per day, in 12-minute sessions, 10 a day.

300

Number of Machine Zone employees

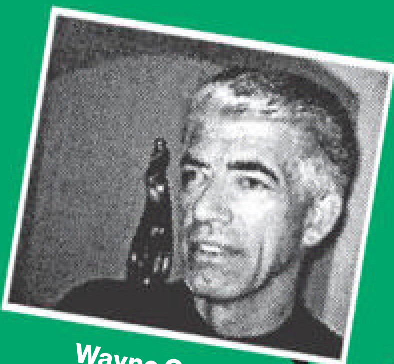
Even some of the people who don't like Game of War—more than one reviewer finds its rules incomprehensible and its commercial appeals tacky in the extreme—appreciate how richly textured it is for the small percentage of users willing to immerse themselves in the experience. "The interesting thing about Machine Zone is in the mobile game space, they're a very niche product compared to a Candy Crush Saga or even Clash of Clans," says Patrick Walker of EEDAR, a market-research company. "Their TV campaign was as broad as can be, with a supermodel and these fun battles. But the game itself is these deep relationships with alliances and resource management. It's not like playing a shoot'em-up game or a sports game. The people interested in the game are willing to invest more time to understand these deep, complex rules."

"I look at Game of War as a scale niche product," says Leydon. "I don't need to have everybody on the earth like it. I just need to make it for the people that do like it. That's just a free-to-play rule, because only 3 percent of the people actually pay to play, and just quadruple that even stay around." That means that of the tens of thousands of new downloads Game of War got on Super Bowl Sunday, Leydon only needs a few thousand players to become paying customers. "Arcade games were good training," Leydon says. "You had to make something that made people want to keep going. Not even to pay, but to keep going again and again and again. That's the challenge, and not many people are good at it."

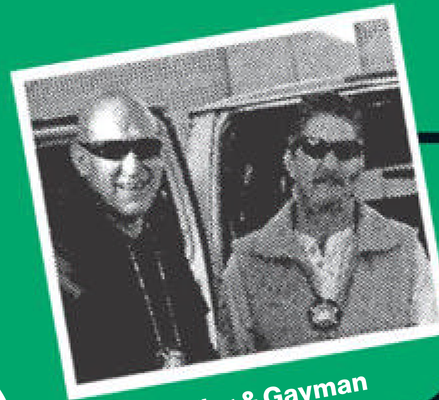
More empire-building games are entering the free-to-play market. Zynga, creator of FarmVille, has a new game called Dawn of Titans coming out this year. Leydon, meanwhile, intends to focus on what his new networking technology can accomplish outside the gaming world. He says dozens of companies have asked to license Machine Zone's translation engine. Its applications, he says, span beyond gaming and into finance, logistics, social networking, and data analysis.

"We're a technology company," he says. "We're not really a game company. What we accomplished here is actually where we're going next. Getting so many devices to participate in the same experience at the same time—that's going to be the most important part of the business." Ⓑ

Rock



Wayne Catlett
The CEO



Miller & Gayman
The detectives

Larry Biegle
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Tony Thomas
The "investor"

The Bahia Emerald
The stuff that dreams are made of

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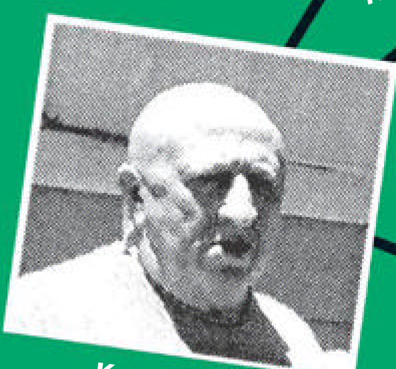
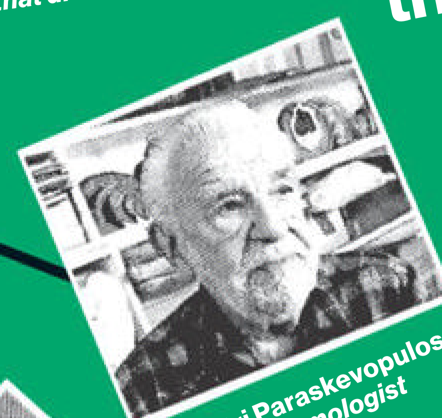
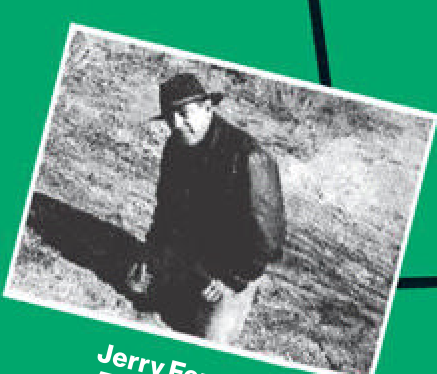


Ken Conetto
The expert

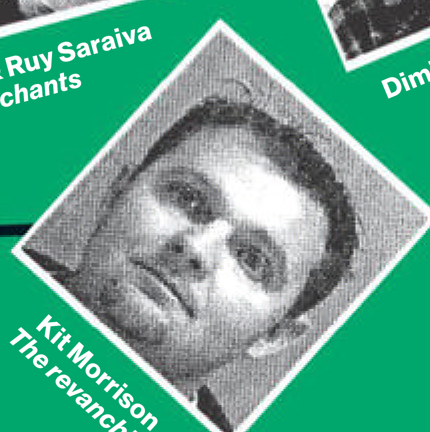
Elson Ribeiro & Ruy Saraiva
The merchants



Dimitri Paraskevopulos
The gemologist



Jerry Ferrara
The explorer



Kit Morrison
The revanchist

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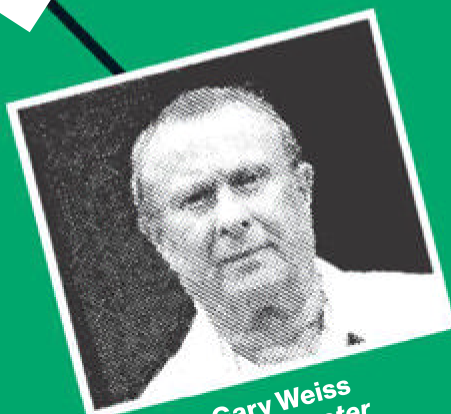

Gary Weiss
The promoter

long, strange story of Bahia Emerald

By Brendan Borrell

In the northeastern Brazilian state of Bahia, not far from the city of Pindobaçu, the land is creased like an accordion. There, the earth's crust has been squished into a series of granite ridges separated by scrub-filled valleys. These folds are rich with the elements beryllium and chromium, which have worked their way into the cracked rock and cooled to form green hexagonal crystals—emeralds. Starting in the 1960s, thousands of prospectors, known in Portuguese as *garimpeiros*, have flocked here to mine. Descending hundreds of feet down shafts no wider than manholes, they risk their lives to hunt for the gemstones.

One of these shafts sits below a farm owned by an elderly man. One day in early 2001, according to an investigation by Brazil's National Department of Mineral Production, a garimpeiro there emerged from the ground with an emerald formation far larger than anyone had ever seen. It was a dark, tombstone-size hunk of shale, with a dozen greenish columns jutting out like sticks of Kryptonite. Weighing 840 pounds, the rock matrix contained an emerald estimated to be 180,000 carats in size. At the time of its discovery, it was the largest uncut emerald in the world.

Like most of the emeralds from Bahia, it was cloudy and marred by impurities. High-quality stones from the world's top mines, in Colombia and Zambia, can sell for thousands of dollars per carat, but a typical emerald from Bahia is worth less than $10 per carat. Many of its gems are used in costume jewelry. Others are exported to Arab markets, where they're bought to decorate mosques and houses. Still others become collectors' pieces, admired as geological novelties.

The Brazilian TV news program *Fantástico* reported that a local man bought the Bahia Emerald early on for $5,000 and subsequently sold it for $20,000. Details of the next transactions are sketchy—the emerald appears to have changed hands a few times before two men bought it around June 2001. Elson Ribeiro, a former bookseller and gold miner, and his partner, Ruy Saraiva, crated the stone, placed it on the bed of a pickup truck, and drove it away from Pindobaçu.

"There's an entire subculture of people who will buy anything because of its size," says Ronald Ringsrud, an American emerald expert. "The story is what sells the piece." And a story is what the Bahia Emerald got. Whatever the gemstone is really worth—next to nothing or several hundred million dollars—court records show that it's been traded around the world by a gang of con men, dupes, detectives, and double-crossers worthy of a Coen brothers movie. It might all be farce if not for who entered the dispute last fall: the nation of Brazil, which wants to get its rock back.

In the summer of 2001, Tony Thomas was 37, flush with cash, and trying to get a foothold in the technology industry. He had never been to college, but the construction company he owned, which specialized in laying gas and electric lines underground, was booming. "This was the dot-com era," he says, "when anything anyone did in the Silicon Valley was taking off."

Thomas styled himself an investor. He'd poured more than $200,000 into a high-definition TV company in Los Gatos, Calif., called Digital Reflections Inc. and was encouraging his friends and family to get in on the action. DRI's prototype had a sleek exterior designed by Porsche and a cutting-edge display technology called liquid-crystal-on-silicon. At the company's headquarters, the animated film *Antz* played on a loop on a 50-inch screen with eye-popping colors like nothing Thomas had seen before. In those days, a TV that size would cost tens of thousands of dollars, but Wayne Catlett, DRI's chief executive officer, promised to deliver a model at a fraction of that price.

At 6 foot 7, Catlett was as slender as a fiber-optic cable, with movie-star good looks, dark eyebrows, and silver hair. In July 2001, as the boom was collapsing, he told Thomas they were in danger of losing everything. Venture capital had dried up, he said, and DRI desperately needed some new funding to survive.

Thomas had an idea. He mentioned a mining consultant he'd met at a construction site. The consultant, a salty fellow in his late 60s named Ken Conetto, had wowed Thomas with his knowledge of minerals and intrigued him with tales of Brazilian emeralds. Two of Conetto's longtime contacts were Ribeiro and Saraiva.

It's not clear when Catlett teamed up with Conetto against Thomas, but Catlett proposed that Thomas and Conetto go to Brazil to buy emeralds at cut-rate prices. As Thomas understood the plan, the gemstones would be appraised generously—he hoped for as much as $100 million—placed into safekeeping, and used as collateral for loans. The money from the loans would be deposited in what Catlett described as a high-yield investment program, supposedly facilitated by the International Chamber of Commerce (ICC). If Thomas had any doubts about the mechanics, they were eclipsed by thoughts of profit. After 47 weeks, the money was supposed to double, and they could pay back the loan and sell off the emeralds. Twenty-seven percent of the gross proceeds were to be invested in humanitarian projects, but the rest could be channeled back into DRI. Thomas would get a 10 percent consulting fee, but in the meantime he'd have to pay for their expenses and provide seed funding for the first emerald purchases.

In reality, the ICC was warning consumers that it did not vet investments and that con men were collecting $1.5 billion per year by promising outrageous returns through mysterious "prime banks." Thomas knew none of this. "I believe in people and

take them at their word," he says. Catlett, who stood by the plan in court, didn't respond to requests for interviews. "I had no knowledge of gems," he testified in 2010. "This was completely outside of my area of expertise. But at that stage of the game, we were willing to try most anything."

One steamy São Paulo morning in September 2001, Thomas, Conetto, Ribeiro, and Saraiva climbed into a van at their hotel and drove to a residential neighborhood. They pulled up to a house with a green tarp covering something in the carport; Conetto watched as a white cat peed on it. One of the Brazilians shooed away the cat and whipped off the tarp, revealing the 840-pound Bahia Emerald. Conetto chuckled as Thomas went bananas. Thomas took two dozen photos, then handed the camera to one of the Brazilian owners of the stone. He got down on one knee, reached around the emerald with his right hand, and cracked a big goofy grin.

Soon after, the Brazilians had Dimitri Paraskevopulos, a Turkish-born gemologist in his late 70s, deliver an appraisal. "Such a rare specimen has never been seen before," he wrote, "not even at an international auction house such as Sotheby's." The gemologist mentioned the price of an emerald supposedly at the British Museum in London and said the Brazilian stone was superior. "I estimate is [sic] worth US$925 million," he wrote. "As an expert gemologist, I must emphasize that this stone is a magnificent and rare find, worthy of admiration." (Paraskevopulos did not respond to requests for comment.)

On Oct. 26, Catlett arrived in São Paulo to check on Thomas and Conetto. The atmosphere was festive inside the NH Della Volpe Hotel. Hors d'oeuvres and drinks were being served in the restaurant, where garimpeiros wandered around with folded pieces of paper filled with gemstones. It was the day before Thomas's 38th birthday. A cake with the words *Feliz Aniversario* was brought on a silver platter over to the table where he sat across from the Brazilian owners of the Bahia Emerald. In photographs from the evening, Catlett, Conetto, and Thomas look like old friends.

Mesmerized by what he saw in Brazil, Thomas wired a total of $180,000 to his business partners by the end of November. He now says he thought he was buying the Bahia Emerald for himself for $60,000, and the Brazilians would ship it to him in California. That never happened, and Thomas has no bill of sale to prove his purchase. Catlett, Conetto, and the Brazilians would later argue in court that Thomas was simply paying their expenses as part of their failed investment scheme.

Over Christmas in 2001, Catlett penned a farewell message to Thomas and other DRI investors before declaring bankruptcy. "There has been a tremendous effort over the past five months to restructure and obtain funding for the company," he wrote. He didn't mention that some of DRI's financial problems resulted from him fraudulently siphoning millions of dollars to a bank account in the Grand Caymans, according to a civil judgment in Santa Clara County Superior Court. Catlett has denied wrongdoing.

For the next three years the Bahia Emerald sat in a vault at the Bank of Brazil. Then, in 2004, Catlett, Conetto, Ribeiro, and Saraiva formed a company in Panama called Gemworks Mining. They shipped the emerald to San Jose, Calif.—declaring it a $100 rock on shipping forms—and recruited an ensemble cast, including convicted fraudsters, to rope in investors across California.

Gemworks made money through a variety of business ventures of varying complexity. In one case, they asked for a short-term loan to complete an emerald purchase and then strung along the lender for months before cutting off all contact, according to a review of their e-mails. Other times, they claimed a loan would be used to create highly lucrative emerald-backed securities. Shell corporations sprouted in Nevada. Jargon-filled contracts were illustrated with flowcharts that looked like blueprints for an integrated circuit. And they erased any doubts by flashing a handful of gemstones or a photo of the Bahia Emerald.

A chiropractor wired $40,000 to buy a promissory note linked to the Bahia Emerald—a judge called the scheme "despicable and reprehensible." A wealthy real estate developer in Sacramento, Mark Downie, gave Conetto and Catlett an $81,000 loan to get another Bahia Emerald-backed investment scheme rolling. (Conetto says he didn't know where the money came from and denies participating in any scam.)

According to Conetto, the Gemworks gang were constantly double-crossing one another and covertly moving the Bahia Emerald to make a quick buck. It bounced between a warehouse Conetto used in San Jose; the Santa Barbara office of Catlett's lawyer, Eric Kitchen, who died in 2013; and a vault Catlett rented in a former federal bank in New Orleans, where it was threatened by the floodwaters of Hurricane Katrina. It became notorious among collectors of rare gems and minerals after Catlett signed ownership over to Larry Biegler. A real estate developer based in Paradise, Calif., Biegler was a big man with thinning dirty-blond hair and a cartoonishly nasal voice who claimed his wife was an heir to the Rockwell tool fortune. (She says she isn't.) "He was a con man's con man," Conetto says. Biegler declined to comment.

Biegler enlisted Gary Weiss, a New York-based diamond dealer, to promote the Bahia Emerald; Weiss posted a listing for the stone on EBay in 2007, inventing an origin myth with riotous detail. According to the listing, the supervisor of the mine where the emerald was discovered needed eight men to heave it out of the ground and onto a jungle trail. They hauled it toward São Paulo until, five months into their journey, a pair of black panthers attacked the team's mules. The men built "a stretcher from wood and vines" and "carried the rock by hand the rest of the way."

With a starting bid of $18.9 million and a "Buy It Now" price of $75 million, the emerald never sold, nor did anyone really expect it to. At a minimum, the goal of the far-fetched tale was simply to pump up the price, according to Weiss. "That stone would be worth nothing if we didn't romance it the way we romanced it," he says.

On the afternoon of May 14, 2008, Emil Ayad stepped out of his office in East Los Angeles and watched a black van pull up to the cargo bay. Ayad managed a private vault for Commonwealth International, a boutique armored-transport company that provides more personalized service than Brink's. The vault itself is a custom-forged steel box, 20 feet by 20 feet, where Commonwealth's clients typically stored cash, artwork, and jewels.

Ayad had gotten a call that morning about a couple of guys who had a "stone" they wanted to deposit, and he imagined a tiny diamond that could be tucked into a safe deposit box. Now, he could see the idling van sagging on its suspension. As Conetto tells it, he sat in the passenger seat, while Biegler sat at the wheel.

Six employees hoisted the crate onto a jack and lowered it to the concrete floor. Ayad watched as an electric drill whirred away at dozens of screws. Finally, the side of the crate came off with a thump. Ayad stepped forward and gazed at the Bahia Emerald in awe. After seeing an appraisal valuing the emerald at $372 million, he increased the vault's insurance coverage with Lloyd's of London.

Ayad didn't like a lot of movement in and out of the vault. Every time a client passes through the front door, he has to stamp his thumbprint next to his signature. But that summer, Biegler and a partner named Jerry Ferrara—who had a hoop earring and ran a Florida real estate company called Honest Father Buys Houses—

"These guys could sell a

ON PREVIOUS SPREAD: BIEGLER: GETTY IMAGES; CONETTO, THOMAS, WEISS: BRENDAN BORRELL (3); EMERALD: LOS ANGELES SHERIFF'S DEPARTMENT/REUTERS; FERRARA: COURTESY YOUTUBE; MILLER & GAYMAN: COURTESY LOS ANGELES SHERIFF'S DEPARTMENT; RIBEIRO & SARAIVA: COURTESY JOY MACKELL

treated the vault like a showroom, bringing in potential buyers of the Bahia Emerald on a moment's notice.

One day, Ferrara brought by Kit Morrison, a dapper Mormon businessman with a trim goatee who lived in Idaho. According to court documents, Morrison wanted to buy some diamonds, and Biegler told him he had a shipment of them coming from South America. Biegler asked Morrison to wire him $1.3 million; Morrison would get a stake in the Bahia Emerald until the parcel arrived. As Morrison waited for Biegler to deliver the diamonds, Ferrara and Morrison would periodically drive to the Commonwealth vault to check on what Morrison called his pet rock. But as the weeks passed and no diamonds appeared, with excuses adding up, Ferrara says the situation grew heated.

In early July, Biegler called Ferrara to say he'd been kidnapped by the Brazilian mafia for 15 days. After his supposed release, he tried to pacify Morrison with three blue barrels of tiny emeralds, each barrel weighing 100 pounds. But the stones looked like something you might find on the bottom of a fish tank, or polished into beads on a cheap necklace. Morrison sold them all for $20,000 in New York. According to depositions and interviews with his business associates, that was barely enough to cover his expenses for a month of renting hotel rooms. Neither Morrison nor his lawyer responded to requests for an interview.

Morrison knew he'd been duped, and he decided to get even. He persuaded Ferrara to switch teams, and they set up a new corporation together, F & M Holdings. On Sept. 26 they arrived at the Commonwealth vault and, using Ferrara's authorization, loaded the emerald into a black Cadillac Escalade with tinted windows and drove away. Ferrara says they had every right to do so. "I got possession, I got chain-of-title, we paid real money for it," he says. "They've got nothing." After leaving the vault, he e-mailed Biegler: "I guess the saying is true (there is no honor among thieves)."

In early October 2008, Biegler reported the emerald as stolen to the Los Angeles Sheriff's Department. The case landed on the desk of two roving detectives in the county's Organized Crime division, Scott Miller and Mark Gayman. Meeting at a Denny's to discuss the case with a reporter, they look like they've gone deep undercover in Margaritaville. They wear wraparound sunglasses, baggy shorts, and oversize T-shirts to conceal their Berettas and beer bellies. The lawmen had a certain admiration for the Bahia Emerald crew. "These guys," Gayman says, "could sell a snow cone to an Eskimo."

For three days in December 2008, Miller and Gayman staked out Morrison's home in the small town of Eagle, Idaho. Even though it was a week before Christmas, they weren't prepared for the Idaho streets to be blanketed in snow. They were cold, and Morrison was nowhere to be seen. On the morning of the third day, Gayman knocked on the front door. Morrison's wife, Suzanne, answered, looking flustered. She glanced outside and saw a line of police vehicles stretching down the street. "Do you know why we're here?" Gayman asked.

"No," she said.

"We're here to get the Bahia Emerald." Gayman told Suzanne Morrison that her husband was the prime suspect in the theft of the stone. After Gayman stepped inside, Suzanne got her husband on the speakerphone from Los Angeles. He refused to say where the emerald was, besides not in Idaho.

"If you don't take us to the emerald, we're going to put you in jail," Gayman said.

"Take me to jail," Morrison replied.

Outside, Gayman's partner spotted a man fitting Morrison's description walking around to the back of the house. Several officers tackled him in the snow. It turned out to be the cable guy.

By the afternoon, Morrison had cooled down and agreed to hand over the Bahia Emerald to the authorities, at least until its ownership could be resolved. Two days later, Miller and Gayman were leading a caravan of six vehicles, loaded with M4 and AR-15 assault rifles, from L.A. to Las Vegas, where, with a helicopter escort, they picked up the emerald at a storage facility. Whatever the rock's true worth, the state of California was now a full participant in the legend of the Bahia Emerald. On their way back, Gayman and Miller gave Conetto a call to tell him that all 840 pounds were safely in the hands of the state. "Thank goodness," Conetto said.

In January 2009, Conetto sued Morrison for ownership of the emerald. As the two parties were on the verge of a settlement, in which Conetto would pay Morrison $5 million, news coverage of the case led four other claimants to come out of the woodwork, saying in court they'd been swindled by either Conetto or Morrison.

After Tony Thomas saw the massive emerald on the evening news, he picked up the phone and gave Conetto a piece of his mind. "Ken, you never paid a dime in your life for nothing," he told him in a conversation Thomas recorded in cooperation with the sheriff's detectives. "You haven't worked since I have known you. You haven't worked a job. How did you pay for this stone, Ken?"

"You get your attorney, play your little game, take your best shot," Conetto replied. "You're going to get your d--- smacked in."

Justice has creaked along at a geologic pace. One judge, John Kronstadt, found Conetto a sympathetic, if enigmatic, character. "His demeanor, tone, and pace of responses all led the Court to find his testimony very credible," he wrote in one ruling.

After seeing a second judge reject his claim to the emerald in January 2014, Thomas has declared bankruptcy. Conetto, Catlett, Ribeiro, and Saraiva, working together, settled with Morrison for a percentage of the stone. They defeated in court the last holdout—Downie, the Sacramento developer—and prepared to sell the Bahia Emerald again. Conetto said last year that Morrison had a "sheik" lined up to buy it for millions.

But anyone who knew the history of the Bahia Emerald could have predicted that there would be no denouement. In September, Brazil sued to have the lawsuit in Los Angeles dismissed or halted while it "pursues federal and diplomatic efforts" to repatriate the stone, which it alleges was illegally mined and exported. "Instead of being in a museum in Brazil where it can be admired for its stunning size and other attributes, it is the subject of this action by a number of parties who claim they somehow own it," Brazil's lawyers wrote in a court filing. "They don't. The Bahia Emerald is, and always has been, the property of Brazil."

One afternoon last May, Conetto invited a reporter into his aquamarine trailer home in a pleasant part of South San Jose, where he's lived with his elderly mother for more than 30 years. His TV is tuned to the Gem Shopping Network, and he has six La-Z-Boys lined up to help him develop business strategies. If he's having trouble brainstorming in one chair, Conetto explains, he moves on to the next. "I'm a thinker," he says.

By his estimate, he's already earned more than $300,000 from his involvement with the Bahia Emerald. Now he just wants the whole ordeal to be over. "Everybody is a crook in this thing," he says. The emerald was just "a pimple on a dog's butt." He digs through a stack of papers and pulls out a photograph of another large rock. "Just between you and me," he says, "I have something four times bigger than the Bahia Emerald." B

snow cone to an Eskimo"

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TOO MANY TINY HOMES / LADIES, LOSE THE TIGHTS / GOOD WIRELESS MUSIC / THE NEXT COCONUT WATER

ETC

CAMP WENDY

Daytime talk is a notorious career ender. Not for Wendy Williams

By Chris Rovzar

Photographs by Emiliano Granado

Wendy Williams is sitting alone onstage, like a doll in an oversize chair. Her spindly heels dangle several inches above the floor as she tells a story about Kim Kardashian and her husband, Kanye West. A few weeks ago, Kardashian's half-sister got into a Twitter feud with a model named Amber Rose, who once dated West. The rapper tried to intervene. "So now Kanye is all up in grown women's business," Williams tells her 50-person live audience, who explode in applause whenever she pauses. "We hate when our men get involved with our girl fights!"

This is what Williams calls Hot Topics, a 21-minute monologue about celebrity gossip that's delivered without a script and almost no notes. It's the cold opening to *The Wendy Williams Show*, her syndicated talk show, which has aired since 2008. Williams's audience has risen sharply in the past year, and the program attracts 2.4 million daily viewers on average, according to Nielsen. Among women age 25 to 54, the most coveted demographic by daytime advertisers, hers is the only talk show to have achieved year-over-year national growth, and Williams now trades off daily with Ellen DeGeneres as the No. 1 female host. (Dr. Phil beats them both, albeit with a different format.)

"There are so many talented people who tried to do these shows who have not succeeded," says Robert Thompson, a professor of television at Syracuse University. Earlier this decade a dozen or so broadcast stars (Katie Couric, Anderson Cooper, Meredith Vieira, and Jeff Probst among them) tried to claim a chunk of the 6 million viewers Oprah Winfrey abandoned when she ended her show in 2011. Only Vieira's program, which draws 1.5 million daily, remains. "Even Katie Couric, whose show you expected would have been good, it just never worked," Thompson says. "What Wendy does is some combination of making it seem like she's talking intimately and candidly to you, even though she's talking to millions of viewers."

WILLIAMS MAKES "IT SEEM LIKE SHE'S TALKING INTIMATELY AND CANDIDLY TO YOU, EVEN THOUGH SHE'S TALKING TO MILLIONS OF VIEWERS"

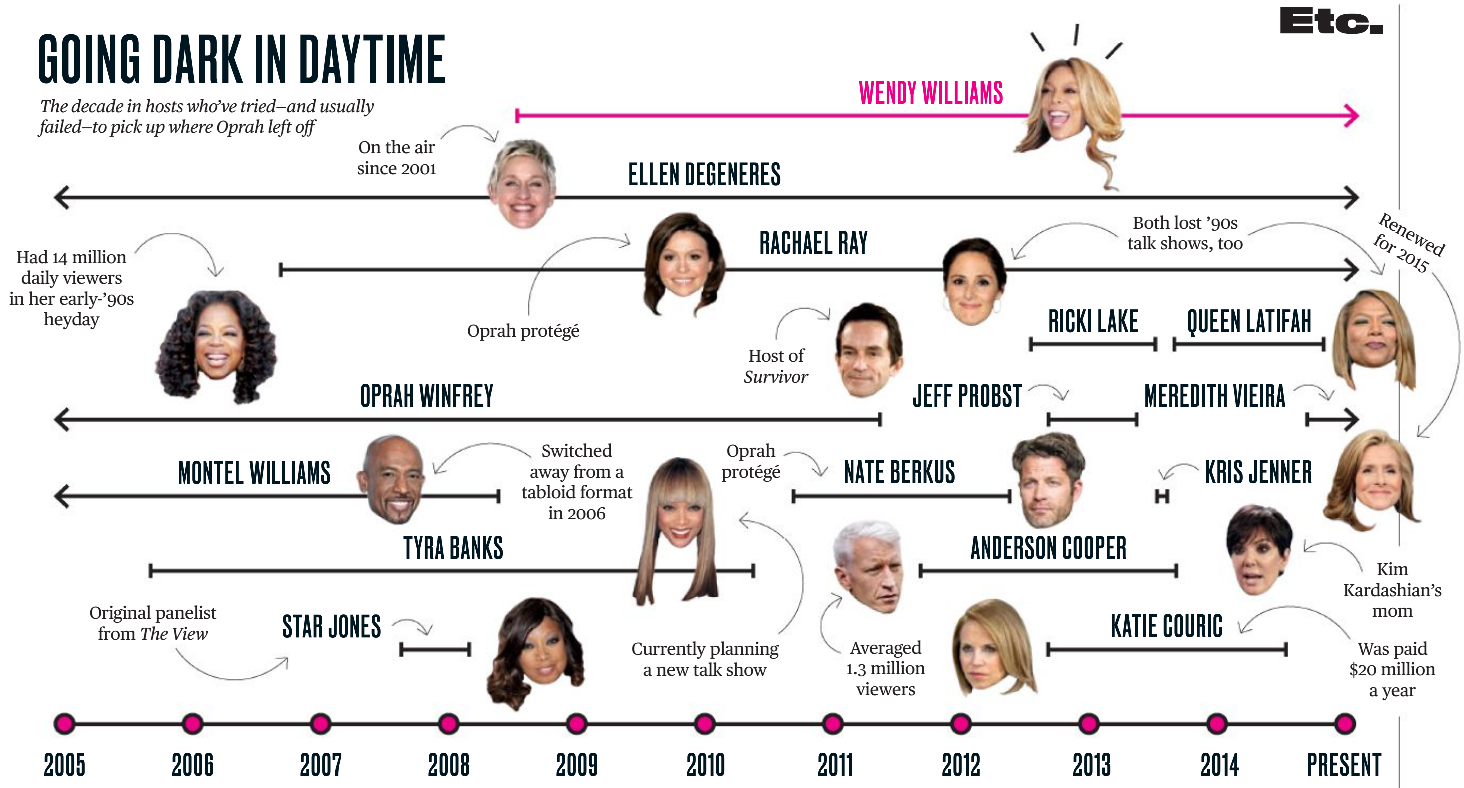
Williams has no formal on-camera training. Before she started on TV, she was a popular shock jock—sometimes called the female Howard Stern—playing hip-hop and chatting with pop stars out of WBLS in New York. She'd worked at smaller radio stations since college at Northeastern University in the '80s, then in the Virgin Islands, and eventually in Philadelphia and New York. By the late '90s, Williams was known for dishing out harsh judgments of major celebrities. Mariah Carey and Will Smith both wrote bitter song lyrics about her. Her biggest blowup came with Whitney Houston in a 2003 interview, when she pressed the diva about her drug use. "It seems like I have a slick mouth. But it's very methodical," she says from her back office, which is plastered in fan art and other lifelike Wendy totems that audience members often bring her.

Knowing that Williams would be an edgy choice,

PHOTOGRAPHS BY EMILIANO GRANADO FOR BLOOMBERG BUSINESSWEEK

GOING DARK IN DAYTIME

The decade in hosts who've tried—and usually failed—to pick up where Oprah left off



the syndication company Debmar-Mercury approached her to do a six-week TV trial during the summer of 2008. She played on four stations in second-tier cities, recording from a cheap studio. She hid notes in her wig for when she froze on camera, which happened frequently. "I had to prove something to those people in the Midwest," Williams says. "Now, six years later, we're on prime time."

She won't reveal how much she earns, but there's still plenty to be made in syndicated daytime television; it's a $5 billion ad market, say analysts at Kantar Media. Shows like Williams's woo advertisers such as L'Oréal and Macy's, because 90 percent of viewers watch them live, according to the Syndicated Networks TV Association. Last year, as Williams's ratings soared, she began moving to more desirable networks, including NBC affiliates in West Palm Beach, Fla., and Columbus, Ohio. "You'd think, 'Oh, wow, she can't perform in a white market,'" says Mort Marcus, the Debmar-Mercury co-president who gave her the trial. "She's now crossing over."

The show works best when Williams is dishing on pop culture. "When I'm not working, honestly, my weekends now are absolutely in my robe, on a couch someplace in our house in New Jersey watching TV," she says. Like her Hot Topics, which are assembled by a team of six employees—"they're actually people that have a passion for Justin Bieber being a jerk"—much of the hourlong show is devoted to Hollywood. Occasionally, an A-lister such as Chris Rock will stop by, and Williams will ask an off-color question, then the clip will go viral. Recently she asked the singer Jennifer Lopez whether she sleeps with her exes. "I did have a 10-second dub button with the radio, and we have a 10-second dub button here on the show," she says, "and it's never happened in all of our six years."

Williams doesn't use social media, but her brash questions have made her a star on YouTube and Twitter. Her over-the-top appearance probably helps: She's 5 foot 11 in flats, which she rarely wears. In recent years, she's freely admitted to having liposuction and plastic surgery, and her chest has been augmented to the point of balloonishness. Her glamor wigs make her seem even more out of proportion, with her tiny waist and long, thin legs. "My middle name could be 'Tada!' I've always had a flair for the extra, in real life, in radio life," she says. "One day I will pass out, and I want them to keep the cameras rolling. I've already told them—just pull down my skirt."

Her fans sometimes tell her they'd like to be more like her. So, in 2013, she started selling a line of wigs, Wendy Williams Hair World, for $49 to $999. After that came Adorn by Wendy Williams, a line of $60 baubles available on QVC. In January, she announced an apparel line she'll design for the Home Shopping Network. The clothes are based on what she wears on-air—mostly tight blouses and tight skirts—and she plans to promote them using her show. "I'll be wearing them in the streets, too," she says, "because it's a working woman's line." Prices run less than $100 per item, and everything will be available in extra-small and plus sizes.

Last year, when Williams turned 50, she decided she wanted to mount a standup show in Las Vegas. The performance sold out the first night at the Sands Showroom at the Venetian, then two more nights, and now she's planning a national tour. She's played herself on *30 Rock* and had bit parts in *Think Like a Man* and other movies. When she's not hosting or acting, she produces made-for-TV biopics for Lifetime. She's also written seven books; her first romance novel, *Hold Me in Contempt*, came out last year.

None of this is meant to be an exit strategy from the show. Williams's contract goes through 2017. Late in January she celebrated her 1,000th episode, but she still mentions her six-week audition often on-air. Before a recent episode, she learned that Rosie Perez, one of the new hosts on ABC's *The View*, might lose her contract after her own brief trial. That day during Hot Topics, she had a rare confrontation with her audience. "I feel as though you all are not giving us a chance any more to prove ourselves," she began. "Sometimes people need a moment to find a voice and get into their groove." She gestured toward her massive wig. "Case in point."

She paused, then lifted her head and flashed a gigantic grin. "Let's move on and talk about Mariah Carey!" Ⓑ

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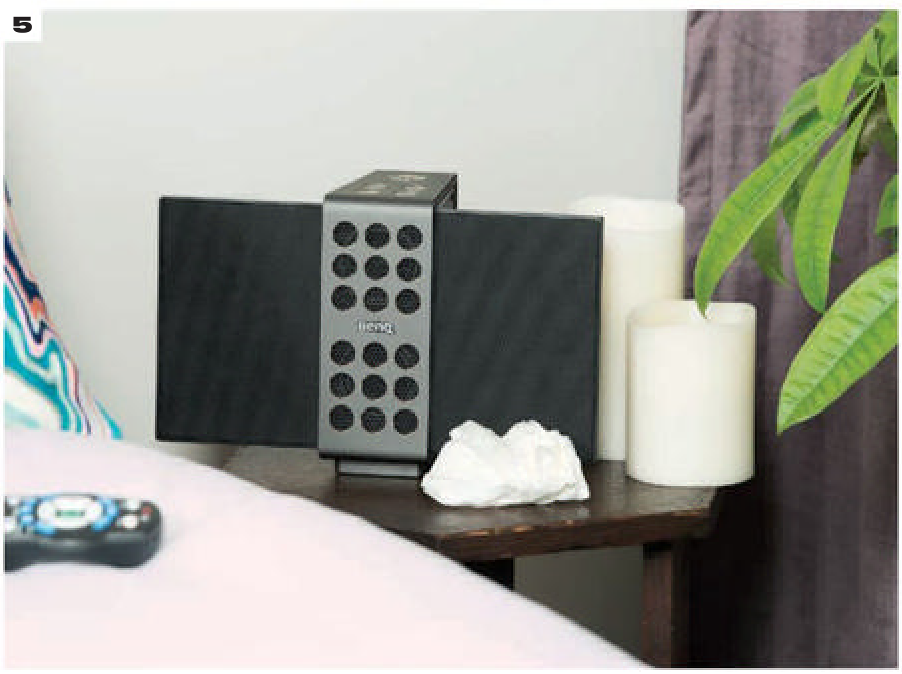

6


Listen Up

The latest wave of wireless audio features better design, longer battery life, and speakers strong enough to drown out your boss. By Kevin Sintumuang

1. Sonos Blue Note Play: 1
$250; sonos.com
In commemoration of the 75th anniversary of the jazz label Blue Note Records, the cerulean tower comes with exclusive access to a station filled with Art Blakey, Dexter Gordon, and other legends. Its software updates wirelessly, and it can connect to other Sonos speakers. The natural sound is perfect for jazz.

2. B&O H8 Headphones
$499; beoplay.com
With most Bluetooth headphones, you sacrifice sound and battery life for

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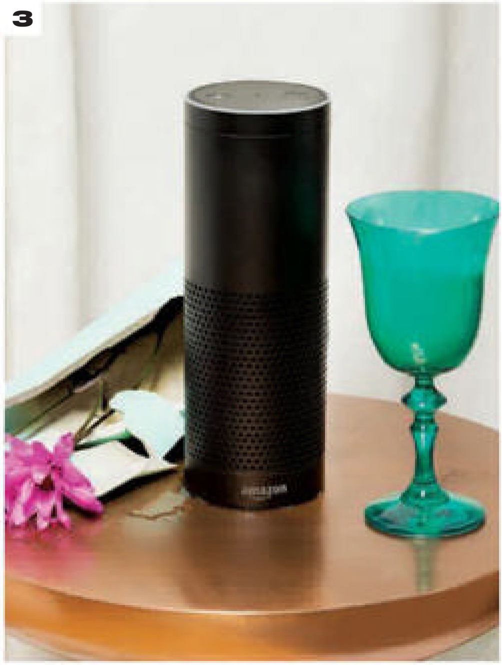

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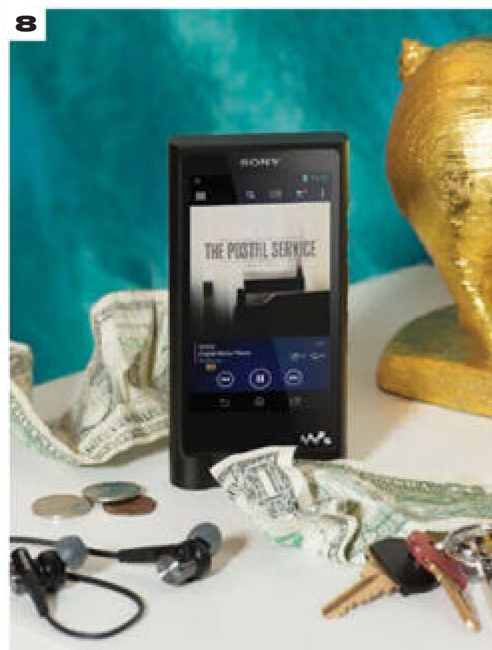


wireless convenience. Not with these. They have 14 hours of power and touch controls that let you skip tracks, take calls, and adjust volume without using your phone. The anodized aluminum and buttery lambskin feel amazing, too.

3. Amazon Echo

$199; amazon.com
You can ask the Echo about anything–the weather, say, or a Wikipedia entry–and it will speak the answer, just like HAL 9000. Or tell it to play pop jams from your Amazon library, TuneIn, or iHeartRadio. The company plans to update Echo often, so it may become more of a smart-home command center.

4. Bowers & Wilkins T7

$349.99; bowers-wilkins.com
The first Bluetooth speaker from a half-century-old English company, it has B&W's trademark honeycomb frame. That's not just for show: It will reduce vibration when you crank up the hip-hop and act as a bumper should you drop it. Battery life is an impressive 18 hours.

5. BenQ treVolo

$299; info.benq.us
Obscure electrostatic speakers are normally reserved for audiophile-level equipment. They produce highly realistic sound with little bulk; it was smart to put them in this device, which folds into a compact size. What the speakers lack in bass, typical of electrostatics, they make up for in clarity. Ideal for classical music.

6. Libratone Zipp

$299.95; libratone.com
This Apple AirPlay-enabled speaker has an Italian wool cover (in 14 colors; $49.95 for each additional) that won't muffle sound. The tube is plenty loud–the Zipp's patented technology sends music in all directions.

7. Braven 805

$199.99; braven.com
The Bluetooth-enabled brick can recharge mobile devices without losing much life itself. Available in nine sporty shades, it connects wirelessly to other units. There's also a noise-canceling mic for days when you feel like being that guy who takes speakerphone calls.

8. Sony Walkman NW-ZX2

$1,119.99; store.sony.com
What can this do that an iPod can't? Play hi-res, studio-quality audio files from Sony's music store and websites such as HDtracks. The price is steep, and the player's bulky, but imagine hearing your favorite music at its very best. If you're a true fan, that's kind of priceless.

PHOTOGRAPHS BY LOGAN JACKSON FOR BLOOMBERG BUSINESSWEEK; PROP STYLIST: PRISCILLA JEONG

BARE-LEGGED IN WINTER

Trying out a cycling trick in place of tights
By Molly Young

As far as pantyhose sales go, it's been a fantastic winter. Too bad many outfits look terrible with them. And what woman doesn't tire of wearing clingy synthetic legwear to work every day through March? Pants are an option, obviously, but they'll never be the same as a great dress.

Earlier this winter, several beauty blogs came up with a bracing proposal: Ladies could go bare-legged on the commute if they started using what's called an embrocation cream. The word "embrocation" has an old-timey appeal. One pharmaceutical manual from 1845 defined the substance as "a fluid medicine rubbed on any part of the body." Ingredients could include opium tincture or olive oil or vinegar. In the modern world, embrocations are used primarily by hard-core cyclists, who rub the balms over exposed limbs before wintry excursions to increase blood circulation and warm the skin.

Today's creams—there are dozens of new brands—share a formula of natural essences (wintergreen, tea tree, clove, camphor) mixed with a buttery base (shea butter, beeswax, lanolin). The active ingredient tends to be capsicum, an extract of red chili pepper used widely in medicine and cosmetics. It's a skin irritant, which you know if you've scorched your tongue on Sichuan food. Side effects can include burning (which is desired in this case) and itching (which is never desired). The secondary ingredients of embro creams are for moisturizing, scenting, or—in the case of camphor—additional bursts of minor skin irritation. "There's no evidence it's dangerous," says Jason Boynton, an exercise physiologist in Madison, Wis. "Capsicum works on particular thermal receptors—there's no actual warmth coming from the creams."

Using these instead of tights is either a great Internet trick or an incredibly stupid idea. My daily commute—a 1.1 mile walk to the office in downtown Manhattan—provides an ideal testing ground, so I ordered three pots of embro with good Amazon reviews.

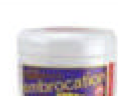
The first contender was Mad Alchemy Russian tea warming embrocation. The rust-colored paste smelled like a delicious holiday candle and dissolved into my skin with a shimmer after a vigorous kneading while wearing latex gloves. (Cycling blogs recommend the gloves, so you don't rub your eyes afterward and go temporarily blind.) After 10 minutes of speed-walking in 38F weather, my legs warmed slightly. The cream didn't eliminate the slap of cold air but did replace it with a more tolerable kind of pain, as if my limbs were being rubbed with the rough side of a sponge. Not bad.

Other creams, such as the unfortunately named DZnuts InHeat embrocation, suggest shaving before applying. Don't. If the oil gets into an unnoticed cut, you will scream. The product itself didn't hold up, necessitating a drugstore stop to purchase tights.

Next, I rode a bike to my office, after painting my legs with Paceline Eurostyle hot embrocation. The temperature outside was 36F. This time, the stuff worked—too well. After five minutes of vigorous pedaling, my leg pores blazed like a thousand tiny bonfires. They kept burning throughout the day, as I replied to e-mails and attended meetings. If Paceline ever saturates the cyclists market, it would be wise to market this stuff for chronic self-flagellators. It's like an invisible, contemporary version of a religious penitent's hair shirt. Ⓑ

Mad Alchemy Russian tea warming embrocation, *$19.95*

DZnuts InHeat embrocation, *$22*



Paceline Eurostyle hot embrocation, *$19.95*

ILLUSTRATION BY CARI VANDER YACHT

What's in Your Water?

Following the success of bottled coconut, plant-based beverages fight to become this year's "it" hydrator. By Maridel Reyes

Wtrmln Wtr Watermelon Water

$72 for 12 bottles; wtrmlnwtr.com

Marketed as both a sports drink and a beauty enhancer, it's made by cold-pressing melon flesh and rind, then adding lemon juice. It's not diluted, so it's pretty sweet.

Healthy? The fruit's got vitamins A and C; antioxidants such as lycopene, said to fight signs of aging; and L-arginine, which may strengthen hair.

Make it yourself: Watermelon chunks, blender, go.

Byarozavik Birch Tree Water

$41.88 for 12 bottles; byarozavik.com

This centuries-old drink is common in Scandinavia, Russia, and China, where the trees are tapped for their sap each spring. It's slightly sugary, with a woody taste.

Healthy? Birch sap is loaded with minerals such as calcium, zinc, iron, potassium, and magnesium, as well as xylitol—a natural sugar that's been found to prevent cavities—and saponins, which some studies suggest may block cholesterol absorption.

Make it yourself: Not unless you have a birch farm.

Arty Artichoke Water

$10.88 for four bottles; artywater.com

Arty presses the entire vegetable—heart, stem, leaves, and flower—then improves the flavor with lemon, apple, mint, and sweet agave. It tastes like iced green tea.

Healthy? One U.S. Department of Agriculture study found artichokes have among the highest antioxidant levels among vegetables. The nutrients may lessen joint pain, ease muscle soreness, and help liver cells regenerate.

Make it yourself: Boil one artichoke in a gallon of water for two hours. Strain, then drink hot or chilled.

Drink Maple Water

$9 for three boxes; drinkmaple.com

When maple trees are tapped in the spring, the thin sap is boiled down to make syrup. Maple water is that sap sans processing: It's 98 percent water and 2 percent sugar—so it's refreshing, not cloyingly sweet.

Healthy? It has half the calories and sugar of coconut water. Research from the University of Rhode Island found 20 nutrients in syrup, including electrolytes and amino acids that may support digestive health and prevent cancer.

Make it yourself: That would require tapping a tree during a brief harvest.

Caliwater Wild Prickly Pear Water

$34.99 for 12 cartons; drinkcaliwater.com

Each box blends cactus fruit puree (for flavor) with powdered cactus extract (for nutrients). The resulting pink nectar has an earthy, berrylike flavor that may be recognizable from some Mexican dishes.

Healthy? For thousands of years, desert communities have ingested prickly pear for nutrition; some say it wards off diabetes. Antioxidants found in the fruit may ease hangovers.

Make it yourself: Boil cactus pieces for three minutes, then cut into smaller pieces. Cover with fresh water, boil for a few more minutes, then strain and cool until cold.

PHOTOGRAPHS BY COREY OLSEN FOR BLOOMBERG BUSINESSWEEK. PROP STYLIST: PRISCILLA JEONG

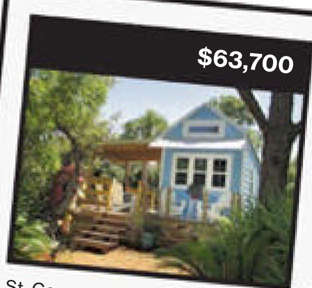
LIVING NOT SO LARGE

The sprawl of television shows about very small houses. By S. Jhoanna Robledo

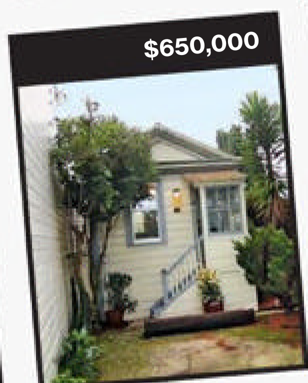
Vince and Sam are newlywed twentysomethings who've been bunking with family for a year. Finally, they've saved up enough to buy a palace to call their own. Well, sort of: They want to shrink their footprint and expenses by living in a custom-built, 204-square-foot standalone house in southern New Jersey. It has to have room for gym equipment—they're fitness buffs—and a study for Sam, who's in medical school. Even Vince's adorably headbanded mom isn't sure how it will all fit. When Vince and Sam first see their new digs under construction, tall and narrow like a top-heavy garage, Vince admits they're "freaking out on the inside."

So goes a standard episode of *Tiny House Nation*, the first of a half-dozen miniaturized real estate shows that have recently premiered. "We discovered that for millennials, there was an overriding social trend of extreme downsizing, and we wanted to dig deep into that," says Gena McCarthy, executive producer of the show, which began airing last year after the Biography Channel morphed into the youth-focused FYI network. Last summer's first season averaged 257,000 viewers per week, according to Nielsen; this season's average viewership is up 77 percent, to 465,000.

The network also airs the more straightforward *Tiny House Hunting*—the word "tiny" appears to be a branding convention—which features earnest couples checking out existing homes. The HGTV network created *Tiny House Hunters* in December, then doubled down with *Tiny House, Big Living*, in which families work with experts to conceive their Lilliputian dream home for five figures. In February, HGTV aired the pilot to *Tiny House Builders*, which focuses on a contractor who "creates micro-masterpieces out of salvaged materials."



St. George Island, Fla., 325-sq.-ft. beachside getaway! Lovely front porch perfect for (small) parties.



San Francisco, 600 sq. ft. Wow! 100 years old. Pretty landscaping is a green thumb's paradise!

There already appear to be enough little homes out there. The real estate tracker Zillow .com shows 2,904 houses, measuring from 100 sq. ft. to 500 sq. ft., currently on the market nationwide. Many are advertised for less than $100,000, though small doesn't necessarily mean cheap: If you're looking in Seattle, as one houseboat-seeking teacher was on *Tiny House Hunting*, you can expect to pay squarely in the six figures. He eventually picked one just shy of that at $99,000. "I would be nervous if I could fit all of my toys in such a small space," he says, sizing up a one-room boat.

210-sq.-ft. Nashville gem! Bay window converts to dining table. Lots of light. This house is ready to roll!

This isn't the first time small homes have been in demand. Filmmaker Kirsten Dirksen, whose documentaries about tiny homes have been viewed 1 million times on YouTube, traces the concept to the 1970s, when Lloyd Kahn released the book *Shelter*, a manifesto to scale back. Next, reclaim-the-land types flocked to the work of designer Jay Shafer, who built a sweet mini-house (Gothic window and porch included) in the 1990s. It spawned copycats, and in 2002, he founded the Small House Society. After the economy cratered in 2008, blogs such as Tiny House Talk and Tiny House Family explored the idea of such homes as an antidote to personal poverty and rampant U.S. consumerism.

On all the current shows, living tiny is presented in an absurdly positive light. We see would-be homeowners trash the stuff they own to pare down their condo's worth of junk into a few crates. Talented contractors MacGyver families' requests into ingeniously engineered spaces no bigger than a moving van. Floors pull up for storage, and beds pull down from walls. Electric fireplaces are made in toaster size. Compost toilets are debated, feared, and sometimes dismissed.

Choosing the best of these programs is sort of beside the point—they're all more or less the same, with a soul-searching element that makes for good, mindless voyeurism. The real appeal for viewers is figuring out how they, too, might make more efficient use of their own not-as-tiny space. "It points out that we don't need a lot of stuff to live a fulfilled life," says Kathleen Finch, the president of HGTV. Her network is developing more tiny-themed shows. Yet, as with the megamansion porn that came before, the bubble must eventually burst. Ⓑ

COURTESY FYI NETWORK

JEFFREY TASCARELLA

35, general manager of food and beverage, the NoMad Hotel, New York

PHOTOGRAPH BY CHRISTOPHER LEAMAN FOR BLOOMBERG BUSINESSWEEK

What's NoMad?
A hotel with a restaurant, two bars, and a lounge. I run the food and beverage operations: menus, hiring, training, finance, kitchen, guest interaction. And we throw huge, extravagant parties and can be creative with that.

Hours?
It's usually 10 a.m. to 11 p.m. If I did the same thing all day, I'd probably blow my brains out.

Do people try to order things not on the menu?
No. Our chef, Daniel Humm, is well respected. It's when you're working in less-than-stellar places, as many of us have early in our careers, that people create food requests.

Do you come to work in your suit?
I ride a motorcycle to work. I wear suit pants on the motorcycle, and when I'm running late, my slippery dress shoes. Do not do that. It's not safe.

How do you keep your feet comfy?
When you work in restaurants, it's a search, your whole life, for shoes that don't hurt. I have these in three colors, and I'll continue to buy them until I die.

Are you a watch guy?
My dad has a jewelry shop in eastern Long Island, so I wear weird old watches. I'd rather have 30 affordable watches than one expensive one.

What's the dress code?
I share my office with the executive chefs. Chefs get to basically wear pajamas.

What's happening in restaurant fashion?
It's crazy how sommeliers, bartenders, and maître d's have recently become these super-well-dressed people.

Why is that?
I have no idea. Top-tier dining attracts people who like the finer things in life, so maybe that's part of it.

Interview by Arianne Cohen

How Did I Get Here?

BRIAN GOLDNER

President and chief executive officer, Hasbro

Goldner, left, with his grandmother, father, mother, and brother

Education

Huntington High School, Huntington, N.Y., class of 1981

Dartmouth College, class of 1985

"I worked on Pert Plus shampoo—'wash and go.' It was the '80s health-club boom, so all the ads were people working out."

"I was on the Kellogg's account—Complete Bran Flakes and Frosted Bran Flakes. I ended up in the bran world. Maybe that says something about my personality."

Work Experience

1985–87
Client services trainee, TV buyer, Leo Burnett Advertising

1987–90
Account executive, Leo Burnett Worldwide

1990–95
Account director, J. Walter Thompson

1995
Senior vice president, Lowe and Partners

1997–2000
President for North America, Bandai

2000
Executive vice president and chief operating officer, Tiger Electronics

2000–01
President, U.S. toys, Hasbro

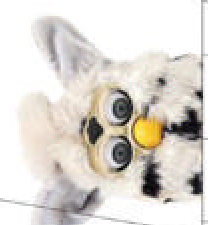
2001–06
President, toy segment, Hasbro

2006–08
Chief operating officer, Hasbro

2008–Present
President and CEO, Hasbro

"In the ad business, you get a 49 percent vote on any initiative. I wanted to be the person driving the creation of the brand. We became a major competitor in boys' action toys."

With mentor Haim Saban and Power Rangers in the '90s



"I met the Hasbro CEO, Alan Hassenfeld, in secret in Cincinnati and agreed to run Tiger, which was an acquisition of Hasbro's. We were doing Furby."

With Mark Wahlberg, star of *Transformers: Age of Extinction*, in 2014

"In 2007 we launched the first *Transformers* movie. And we put our brands, like My Little Pony, on television and DVD for the first time in 20 years."

"I got called to Rhode Island and was told I would be the head of the toy business. My wife was in Chicago, unpacking our new house. I commuted for a year, because we were either going to be immensely successful or not."

"Our downturn hit in 2011, so it's been about reinventing our global brands. More than half our revenue will soon come from outside the U.S."

Life Lessons

1. "People overestimate what you can do in a year and underestimate what you can do in 10—Bill Gates said that." **2.** "Be innately and continually curious." **3.** "Leadership evolves. You have to be flexible."

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